# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

# HEARINGS

BEFORE THE

## TEMPORARY NATIONAL ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

SEVENTY-SIXTH CONGRESS

FIRST SESSION

PURSUANT TO

**Public Resolution No. 113**

**(Seventy-fifth Congress)**

AUTHORIZING AND DIRECTING A SELECT COMMITTEE TO MAKE A FULL AND COMPLETE STUDY AND INVESTIGATION WITH RESPECT TO THE CONCENTRATION OF ECONOMIC POWER IN, AND FINANCIAL CONTROL OVER, PRODUCTION AND DISTRIBUTION OF GOODS AND SERVICES



## PART 9

## SAVINGS AND INVESTMENT

May 16, 17, 18, 22, 23, 24, 25, and 26, 1939

Printed for the use of the Temporary National Economic Committee

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1940

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(Created pursuant to Public Res. 113, 75th Cong.)

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# CONTENTS

## SCHEDULE OF EXHIBITS

# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TUESDAY, MAY 16, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
*Washington, D. C.*

The committee met at 11:20 a. m., pursuant to adjournment on Friday, May 12, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senators O'Mahoney (chairman) and King; Representatives Reece and Williams; Messrs. Henderson, O'Connell, Lubin, Frank, Hinrichs, Patterson, and Brackett.

Present also: Representatives James M. Barnes, of Illinois; Commissioner Edward C. Eicher, Securities and Exchange Commission; Willard L. Thorp, Department of Commerce; Joseph Borkin, Department of Justice; Thomas Blaisdell, Securities and Exchange Commission; Peter R. Nehemkis, Jr., special counsel, Investment Banking Section, Securities and Exchange Commission; and Joseph R. Kelley, associate counsel, Investment Banking Section, Securities and Exchange Commission.

The CHAIRMAN. The committee will please come to order. Today we begin the presentation of the study of investment and savings by the Securities and Exchange Commission. Sometimes I think that this may indeed prove to be the most important of all the studies which have been undertaken under the sponsorship of this committee. Production, employment, and investment are all indissolubly bound together. I suppose it will be remembered that when President Roosevelt sent his message to Congress in April 1938, recommending the study which this committee was instituted to undertake, he pointed out that business enterprise needs new vitality—to use his own words, "and the flexibility that comes from the diversified efforts, independent judgments, and vibrant energies of thousands upon thousands of independent businessmen."[1] And that in concluding that notable message he said that idle factories and idle workers profit no man.[2]

I suppose that the justifiable inference from these brief quotations from the President's message and from the entire message is that it was intended to point the way to a study that might find how free, independent, private enterprise may be stimulated. We want to know who saves money and where the capital reservoirs are, and what the access of the individual is to the capital reservoirs; how individual savings and corporate savings alike affect the common welfare of the United States; and it was with these and numerous

[1] See "Exhibit No. 1," Hearings, Part I, appendix, p. 185, at p. 186.
[2] Ibid., at p. 191.

other questions in mind that the Securities and Exchange Commission, at the direction of the committee, undertook this study, having the benefit of the assistance and experience of all the agencies of the Government which from time to time have had something to do with money and investment.

Mr. Peter Nehemkis, Jr., has been selected as counsel to present the results of the study. Mr. Jerome Frank, of the Securities and Exchange Commission, is here today and I shall ask him to open the hearing.

Mr. FRANK. In these hearings the Securities and Exchange Commission, through the testimony of a number of distinguished witnesses drawn from several agencies of the Government, from finance and from industry, will endeavor to present the facts about certain important phases of our national economy.

The examination of the witnesses will be undertaken by a member of the Securities and Exchange Commission's staff, Mr. Nehemkis. During the presentation of this material, the Commission will be represented on the committee, for the most part, by Mr. Leon Henderson, who has just been appointed to the Commission.

Inasmuch as the material to be presented is the product of many varied points of view, it should be pointed out that the views which may be expressed by the several witnesses are their own and are not to be taken as representing the views of the Securities and Exchange Commission.

Mr. HENDERSON. Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. Mr. Chairman, may it please the committee: As has already been indicated, the public hearings which are to begin today will be concerned with the problem of savings and investment. The purpose of these hearings is to present a factual picture of certain important phases of our economy. The facts will be brought out, as Commissioner Frank has already indicated, by witnesses from several branches of the Government (such as the Federal Reserve Board, the Department of Agriculture, and, I am very happy to say, the Department of Banking of the State of New York) as well as from industry and from finance.

I should like once again to repeat that the interpretations which may be put on some of these facts by some of the witnesses should not be taken as representing the opinions of the Commission which I represent this morning.

Today and throughout these hearings we shall be discussing with you a single problem: Why is it that we continue to have in this country idle men, idle machines, and idle money? To indicate the scope of these hearings, I can do no better than to refer to a series of challenging questions which Mr. Leon Henderson raised before this committee at the very outset of its inquiry. Mr. Henderson then had occasion to say:[1]

> The over-all question seems to be, why have we not had full employment and full utilization of our magnificent resources?
>
> Why has new investment lagged? Is this lag likely to continue? Has the forward drive of the American economy stopped? Have we witnessed the end of our dynamic mass production, lower price, more employment policy? Are we in for stagnation or decline? What is the proper function of government in periods of under-investment? Is government debt different from personal,

[1] See Hearings, Part I, pp. 180 and 181.

that is to say private, debt? Under what set of economic conditions can savings be absorbed? What is the influence of the present rate of return on investment?

It is to these questions, which Mr. Henderson has propounded, that we shall endeavor to present an answer, and it is to these fundamental questions that the witnesses who will appear before you will direct their testimony.

Mr. Chairman, may it please the committee, I desire to call as the Securities and Exchange Commission's first witness, Dr. Alvin Hansen.

The CHAIRMAN. The witnesses of course, under the rules the committee has adopted from the outset will be sworn, even though on many occasions they are often stating only opinions.

Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Dr. HANSEN. I do.

The CHAIRMAN. Let me suggest to the members of the committee in the interests of orderly procedure that it might be well to permit the witnesses to proceed under questioning by Mr. Nehemkis before the members of the committee undertake to examine. At the conclusion of each witness' testimony, the Chair will give ample opportunity to every member of the committee to propound any questions that may suggest themselves to you, and unless there is objection, that will be the rule by which this proceeding will be carried on.

You may proceed.

## TESTIMONY OF ALVIN HARVEY HANSEN, PROFESSOR OF POLITICAL ECONOMY, HARVARD UNIVERSITY, CAMBRIDGE, MASS.

Mr. NEHEMKIS. Will you state your name, please?

Dr. HANSEN. Alvin H. Hansen.

Mr. NEHEMKIS. And your present residence?

Dr. HANSEN. Belmont, Mass.

Mr. NEHEMKIS. What is your occupation?

Mr. HANSEN. Professor of economics, Harvard University.

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, I desire the leave of the committee to read into the record a very brief statement of the professional qualifications of this witness.

The CHAIRMAN. Very well, proceed.

Mr. NEHEMKIS. Dr. Hansen has been a member of the Columbia Commission of Economic Reconstruction during the years 1932–33, a director of research of the Social Science Research Commission on International Economic Relations during the years 1933–34, an economist for the Department of State during the years 1934–35, and chairman of a committee on industry and trade of the Social Science Research Council.

Dr. Hansen has also been a member of the Committee on Research in Fiscal Policy of the National Bureau of Economic Research; chairman of the Economic Advisory Council of the National Industrial Conference Board. Dr. Hansen has also been economic adviser to the Prairie Provinces before Canadian Royal Commission on Dominion Provincial Relations during the years 1937–38, as well as a member of the Advisory Council on Social Security.

Dr. Hansen, have you been past president of the American Economic Association?

Dr. HANSEN. I have.

Mr. NEHEMKIS. Do you accept the statement which I have just read as an accurate résumé of your professional qualifications?

Dr. HANSEN. Yes, sir.

Mr. NEHEMKIS. Have you discussed the substance of the testimony you are about to give with counsel?

Dr. HANSEN. Yes.

Mr. NEHEMKIS. Notwithstanding those discussions, is the testimony you are about to give your own considered findings and conclusions?

Dr. HANSEN. Yes, sir.

Mr. NEHEMKIS. In addition to your general knowledge of the subject, have you made a special study in preparation for the testimony to be given by you?

Dr. HANSEN. I have.

Mr. NEHEMKIS. Dr. Hansen, were the charts which you will identify and discuss prepared at your direction?

Dr. HANSEN. Yes.

Mr. NEHEMKIS. Are they based, Dr. Hansen, upon statistical data which you believe to be accurate and authentic?

Dr. HANSEN. Yes, sir.

Mr. NEHEMKIS. Very well, sir, will you go on with your discussion of the problem, calling for the production of such charts as you may need for the purpose?

Dr. HANSEN. Mr. Chairman and members of the committee, I should like to preface my remarks with a comment about economic analysis and economic conclusions in general. One cannot emphasize too strongly, I think, the undoubted fact that we are here dealing with material which is not subject to unequivocal mathematical demonstration or to verifiable conclusions, such as are possible in the laboratory of the natural scientists. The factual data with which we deal are subject to a varying margin of error. The methods of analysis are imperfect, and, hence, the conclusions are inevitably tentative. The role of the economist in his effort to interpret economic trends and to guide public police must, if one is candid, be an extremely modest one. We are living in dangerous times. It is dangerous to act, and it is dangerous not to act. It is dangerous to give advice, and it would be easy to attempt to escape or to shirk all responsibility by refusing to do so.

On the basis of a good many years of thinking and analysis of economic trends, I have reached certain conclusions, firmly held but subject to revision as new data appear. I have been asked to lay these conclusions before you insofar as they pertain to your inquiry. Because of the shortness of the time at my disposal, and also for the sake of clarity, I have stated these views with relatively few qualifications. I should like, however, to ask you to bear in mind from the very outset that all investigators in this area must approach their subject with due humility, and with a full realization that there is wide scope for difference of honest and competent opinion with respect to both current economic tendencies and the appropriate solutions of our problems.

I cannot give positive proof of any of my conclusions. They must stand or fall according as they do or do not appear to be realistic and sensible to reasonable persons.

The inquiry undertaken by the Temporary National Economic Committee, as I understand it, related particularly to the current functioning of our system of production. Its purpose is to inquire into the reasons why it is not functioning as effectively as it might, into the reasons why it is not succeeding in producing the maximum output of which it is capable, or in giving full employment to our labor and capital resources. It relates not only to the problems of imperfect competition in the decline of price competition; it relates also to the role of consumption, saving and capital outlays in our economy. It involves, therefore, a consideration of the financial institutions through which a large part of our national savings flow and the great reservoirs of savings in which the flow of funds accumulates.

Too frequently when the functioning of the price system is under consideration attention is focused almost exclusively upon the commodity markets.

To leave an inquiry into the functioning of the price system, with a consideration of commodity prices alone would in my judgment overlook a sector in our economy, which is more important than any other for an understanding of the operation, the maladjustments and the instability of modern economic life. I refer in particular to that area which relates to the flow of savings and to the flow of new investment into the expansion of productive equipment.

### THE FLOW OF SAVINGS AND THE FLOW OF INVESTMENT

Dr. HANSEN. Of first-class importance in appraising the functioning of our economy is to examine into the question, what it is that keeps the income stream going; how can it be raised to a higher level; and how may it be maintained at a high level? That income stream flows day by day to everyone participating in the productive process, including not only the production of commodities but also of services of every kind and description, trade, professional, and governmental.

This income stream is large or small according to the volume of purchases currently made. These purchases are of two kinds; one type consists of the purchase of consumption goods and services; another type consists of the purchase of capital equipment, industrial plant and machinery, public utility and railroad equipment, commercial and residential building, and the like. There are, therefore, two streams of expenditures continually going on; one stream consists of expenditures for consumption and the other consists of expenditures on capital outlays on plant and equipment.

How large the income stream will be, whether 60 billions or 80 billions, depends upon the volume of these two expenditure streams. Now the expenditure stream which is mainly responsible for the rise and fall of the total income is the outlay made on equipment and plant expansion. When large expenditures are made on industrial, commercial, residential, and public construction; when office build-

ings, hotels, apartments, houses, school buildings, and public works of all kind are being erected in large volume, when investment is made on a large scale in railroad, utility, manufacturing and mining, and agricultural equipment, the income is lifted to a high level and it can be maintained on a high level so long and only so long as large capital outlays of this sort are being made.

Thus in the good years from 1923 to 1929, inclusive, the total volume of capital outlays amounted to the vast sum of $128,000,000,000. I am taking the figures from Dr. Kuznets in his monumental study on National Income and Capital Formation, made in the offices of the National Bureau of Economic Research. Of this total, one-half was expended on replacements and renewals, and one-half for plant expansion and new construction.

This includes business capital outlays as well as residential capital outlays and outlays for public construction. Average annual expenditure on capital outlays for this 7-year period amounted to 18.3 billions of dollars. It required this volume of capital outlays to lift the national income to 77 billions, the average income figure for this period of high prosperity.

These figures suggest that reasonably full employment and a fairly satisfactory income level, such as we had in 1923 to 1929, require a quite extraordinarily large volume of expenditures on capital goods. It is the margin of income which is created by the capital-goods industries that fills the gap between prosperity and depression. No high level of employment and income has ever been achieved without a large outlay on plant equipment and new construction.

At this point I should like to introduce a chart.

Mr. Nehemkis. Before you proceed, will you let me offer this? May it please the committee, I desire to offer into evidence a chart entitled "Gross National Product and Capital Formation, and Consumer's Outlay for Durable Goods and Other Goods and Services, 1919–37," together with the accompanying table.

The Chairman. They may be received.

(The chart referred to was marked "Exhibit No. 541" and appears on p. 3499. The statistical data on which this chart is based are included in the appendix on p. 4007.)

Dr. Hansen. This is a chart based on the studies of Dr. Kuznets to which I have already referred. It shows in the blue area the gross capital formation, including total capital outlays, both replacement, and new capital outlays.

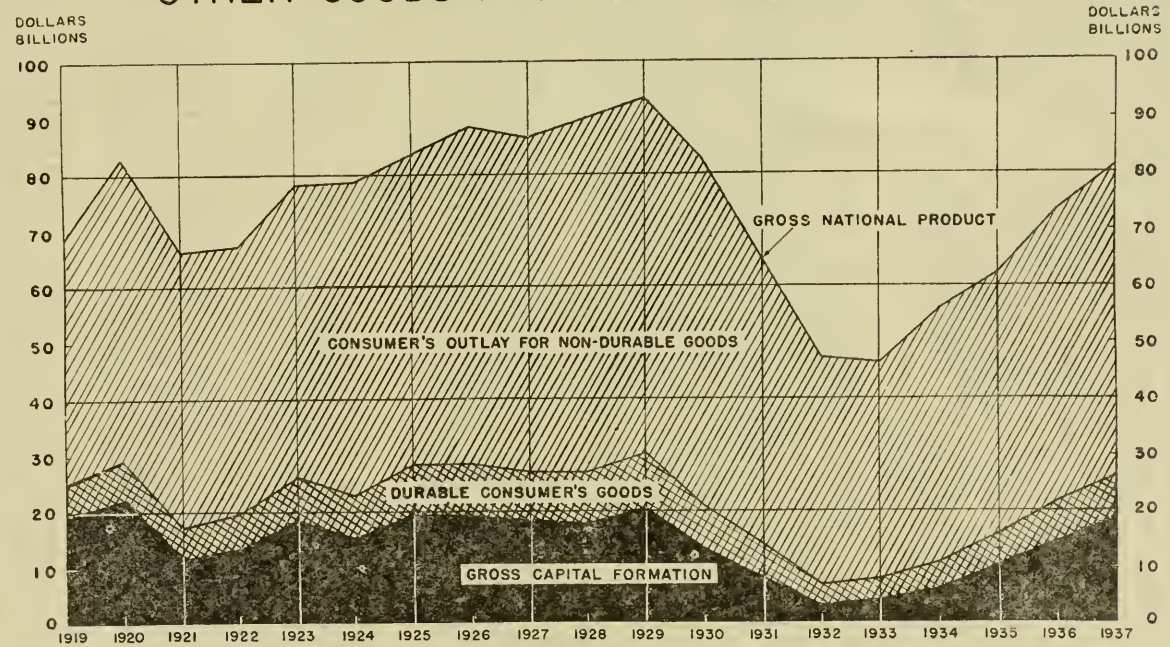
The Chairman. May I interrupt you to say that the colors will not appear in the record, so if you would be good enough to identify the areas to which you are alluding by their arrangement on the chart, I think it would be helpful to the reader.

Dr. Hansen. Yes, sir. The lower area entitled "Gross Capital Formation"——

Mr. Nehemkis (interposing). Would you just define that term, if you will, Dr. Hansen?

EXHIBIT No. 541

# GROSS NATIONAL PRODUCT AND CAPITAL FORMATION, AND CONSUMER'S OUTLAY FOR DURABLE GOODS AND OTHER GOODS AND SERVICES 1919-1937




PREPARED BY THE NATIONAL RESOURCES COMMITTEE

EFFECTS OF CHANGES IN THE VOLUME OF CAPITAL FORMATION ON THE SIZE OF THE NATIONAL INCOME

Dr. HANSEN. I am about to do so, yes. The lower area, which is entitled "Gross Capital Formation," includes the total capital outlays on railroads, utilities, manufacturing, mining, and so forth, and also the outlays on residential building and public construction. It includes not only new capital formation—that is to say, new outlays on new equipment, additional equipment, but also replacements and renewals, and it is particularly the volume of gross capital formation in which I am at the moment particularly interested.

The area above is entitled "Durable Consumers' Goods"—the automobiles and the like; and they are at the top, the large area at the top entitled "Consumers' Outlay for non-Durable Goods," is, I think, self-explanatory. The line at the top indicates what Dr. Kuznets calls the gross national product, or we might call it the gross national income.

This, I may say, is a special definition of gross income in the sense that it includes what we ordinarily call the national income, the net national income, and it also includes in addition the capital outlays that have taken the form of replacement and renewal of plant. Now the thing that I wish to direct your attention in particular to is the large volume of gross capital formation through the twenties, particularly through the good years from 1923 to 1929, and I wish to direct your attention to the fact that so long as those large gross capital outlays were being made, the income was maintained on a high level and indeed growing in that period; but as soon as the gross capital outlays declined heavily, then you get a drastic decline in the income.

You will note, however, that the expenditures for consumers' goods declined percentage-wise was very much less than the decline in the capital outlays, and similarly in the subsequent period of the thirties when gross capital outlays increased, the national income again increased. As I shall say later on, in my testimony, this gross capital outlay may be regarded as the really dynamic part of income, of our national income.

Mr. NEHEMKIS. Dr. Hansen, before you leave the chart may I ask you to return to it for a moment. Will you make clearer to us precisely what you mean by two terms; the first term is "outlay." What does that involve? The second term, what precisely do you mean by "capital formation"?

Dr. HANSEN. By capital outlays I simply mean expenditures on plant and equipment; and on construction. And by capital formation I simply mean those real capital goods, factories, and machines, which were produced as a result of those outlays. Capital formation, then, means the real construction, the construction of real capital goods.

Mr. NEHEMKIS. Thank you very much, Dr. Hansen.

Dr. HANSEN. Let us consider what is necessary in order to keep the income stream flowing on a high level, once it has reached that level. The income received or realized out of the productive process of the prior week or month will either be expended for consumption or it will be saved. The part that is spent on consumption goods and services automatically becomes the source of a new income stream.

The part that is saved may or may not feed into the income stream, depending upon whether or not these savings are used either by the saver himself or by a borrower for the purpose of capital goods, plant, machinery, industrial and commercial construction, houses, office buildings, schools, or public works.

If the saver does not himself use the funds, or if he fails to find a borrower who will use them to purchase plant, equipment, and other capital goods, the income stream dries up and unemployment prevails in the capital-goods industries. It is highly essential that all that part of the current flow of income which is not expended on consumption goods, namely that part which is saved, shall be expended either directly by the saver himself or indirectly through a borrower on new plant and equipment of some sort. If the amount which is saved is large, as it is likely to be at a high income level, it is necessary that equally large outlets be available for these savings in equipment and plant expansion, and in residential and public construction.

In every boom period, the flow of savings is expended on capital outlays of this sort and frequently these funds are augmented by additional sums created out of an expansion of bank credit. In a depression, expenditures on capital projects fall off, savers are unwilling themselves to purchase capital goods with their savings, or are unable to find borrowers to do so. The income stream thus dries up. In consequence, owing to the fall of employment, even the stream of expenditures on consumption declines, and so the income stream shrinks still more.

At low income levels, even the savings stream dwindles away and the economy runs along on a low level of output and employment.

Why is it that no boom has ever been able to perpetuate itself year by year and so maintain income on a high level? Special causes have from time to time brought particular booms to an end, but apart from these we can say that every boom eventually dies a natural death. By this I mean that the available outlets for plant and equipment expansion have been temporarily exhausted. A temporary saturation point has been reached.

The boom is a period in which we exploit to the full all the available new developments which the progress of science and technology, together with the growth of population, have up to that point made economically possible. Once all factories have installed the new machines, once a city has been equipped with the municipal utilities which technology has so far made available, once the construction of houses, apartments, office buildings, hotels, school buildings and the like have caught up with the growth of the population, there remains little that can profitably be done except to maintain the capital plant already constructed. When this point is reached, the boom dies a natural death.

This is essentially what happened in 1929. Nearly all over the world, England excepted, there had been going on for some years a gigantic constructional boom. This was true not only of the United States but of Germany, France, Canada, Latin America, and even the Orient. The vigor of this boom was due in part to the backlog of housing requirements which had accumulated by reason of the cessation of building during the war; in part it was due to the impetus to the industrialization of backward countries which the

war itself had caused, and in part it was due to the growth of new industries and to other factors to which I shall later refer.

The boom of the twenties was a gigantic spurt in capital formation, in capital outlays; progress typically is made by spurts—by leaps and bounds. Progress typically is discontinuous, jerky, and lumpy. New developments are exploited to the full and then the boom dies. It peters out because a saturation point has temporarily been reached. The spurt cannot last at the pace set.

It is not difficult to see that if we had kept on constructing office buildings, apartments, hotels, houses, commercial and industrial structures, and the like, at the rate they were being constructed in the late twenties, we should very soon have bankrupted all the owners of old property.

For a time there was no room left for further plant expansion or for other new capital outlays. It takes time before new developments can again accumulate, before the discovery of new techniques, new resources, new industries, and the growth of population will again set the stage for another boom.

In the depression, even a severe one, gross capital outlays, including plant replacement and renewals, will not sink to zero, but there is danger that the capital expenditures will not be large enough even to absorb depreciation allowances. Thus in such a period there is no room whatever for new savings.

Now the total stream of gross savings consists in part of net savings from current income and in part of depreciation and depletion allowances designed to maintain intact the plant and equipment. If the total expenditures on capital structures and equipment is not even enough to absorb the depreciation allowances set aside by business year after year, a two-fold deflationary effect to the income stream is present, first, the failure of new savings to be expended on expansion of plant and equipment, and, second, the failure of business concerns to expend depreciation allowances on the replacement and renewal of plant and equipment.

Under the impact of the unemployment thus created, consumption expenditures will fall to low levels. Thus the total income stream will be reduced by an amount not only equal to the decline in expenditures on plant and equipment, but also by the induced decline in consumption.

The dynamic part of expenditures, as I have already said, is, however, the outlays on capital goods, on plant and equipment, on construction. It is the rise and fall of these expenditures that causes income to be high or low, and the income will rise or fall, as we have seen, not merely by reason of the increase or decline of capital outlays, but also by reason of the induced increase or decrease in consumption expenditures. The rise and fall of consumption is a result of the rise and fall of employment incident to the rise and fall of capital outlays on plant and equipment. Money expended on capital outlays is therefore high-powered money. Every dollar of money so expended will cause consumption to rise. Every dollar withdrawn will cause consumption to fall. Thus every dollar of capital outlays has a multiplier or leverage effect on income, and similarly every dollar of savings or depreciation allowances not expended on capital outlays drives the income down with a magnified effect.

To repeat, money spent or withheld for capital outlays is high-powered money, whether in the upswing or in the downswing. Thus a society geared to a high peak load of capital-goods production is likely to experience violent fluctuations in income and employment, a high savings economy will remain a highly dynamic economy so long as it is able to experience periodically great bursts of capital outlays on plant and equipment. It is then a dynamic, rapidly expanding, and progressive economy, despite its instability. But if such an economy fails to find adequate investment outlets in plant and equipment for its new savings and for its depreciation allowances, it will lose its dynamic quality and become a depressed and stagnant economy, with a large volume of chronic unemployment. The high-savings economy can escape a fall in income and employment only through the continuous development of new outlets for capital expenditures on industrial plant and equipment and on commercial, residential, and public construction.

So far as private investment outlets are concerned, this requires continuous technological progress, the rise of new industries, the discovery of new resources, the growth of population, or a combination of several or all of these developments.

### RECENT STRUCTURAL CHANGES IN THE NATIONAL ECONOMY

Dr. HANSEN. We are completing this year a decade of unemployment on a scale never before known in our history. This decade of unemployment was interrupted by a partial recovery which culminated in 1937. This depression is of a magnitude and duration which has eclipsed all others, not excepting even the deep and prolonged depressions of the seventies and nineties. It is a unique phenomenon. It cannot be explained in terms of ordinary business-cycle analysis. For the time being at least we are experiencing a chronic maladjustment, a failure of adequate outlets for capital expenditures for a society geared to a high savings, high investment level. We are caught in the midst of powerful forces in the evolution of our economy which we but dimly understand. Something has gone wrong with the forces making for expansion. We are undergoing a fundamental change in the structure of our economic life.

In every historical epoch it has always been difficult for the generation then living to understand what is going on. It is extraordinarily difficult to get a proper perspective on current drifts and tendencies. Forces slowly accumulating over a long period of time have suddenly converged to give us a decade of unparalleled unemployment. Change is indeed the law of life, but change has come in recent years with accelerated speed. It is not difficult to see that the economic system of tomorrow will be very unlike the economic system of the past. We are living in a period of transition. Yet in this period men's thinking is still dominated by frozen patterns of the past into which people try to mold the facts of the present.

The economic order of the western world is undergoing in this generation, it seems to me, a structural change no less basic and profound in character than the industrial revolution beginning 150 years ago and extending deep into the nineteenth century. That revolution transformed the western world from a primitive, rural

economy into a highly industrialized machine economy. In this generation we are passing over a divide which separates the great era of the growth and expansion of the nineteenth century from an era which we cannot as yet characterize with clarity and precision.

One overwhelmingly important fact, however, characterized the century which preceded the World War. It was a unique epoch. It was a century of rapid expansion into new territory and it was a century of prodigious growth of population. Population poured into America, into the great West, into Brazil, the Argentine, Canada, Australia, and flowed back from the agricultural communities into giant urban centers which grew and fed on this expansion. This one central fact of growth and expansion dominated the whole of economic life. It minimized the risk of new ventures. If optimism had carried railroad building too far at the moment, if a city had temporarily overbuilt, the damage was short lived. Expansion and growth soon made good the error. Businessmen could look far into the future with gigantic plants, with anticipatory capital outlays, investment plans which had no relation to the present, and which were based upon the expectation of growth and expansion.

It is not difficult to see that a country experiencing a rapid increase of population requires a vast capital outlay in order to provide housing, transportation, and all the facilities necessary for modern methods of living, such as municipal utilities and the like. The enormous capital outlays of the nineteenth century were, of course, in the first instance conditioned by new technological developments, but they were determined also by the vast growth of population. It seems not unreasonable to suppose—and some rough estimates lead to this conclusion—that approximately one-half of the capital outlays of the past century were due to the growth of population and its expansion into new territory.

J. R. Hicks, a distinguished British economist, in a recent book entitled "Value and Capital," says:

> Nevertheless, one cannot repress the thought that perhaps the whole industrial revolution of the last 200 years has been nothing else but a large secular boom, largely induced by the unparalleled rise in population.

The prodigious growth of population in the nineteenth century was apparently something quite unique in history. Gathering momentum with the progress of modern science and transportation, the absolute growth of population in western Europe mounted decade by decade until the great World War, and in the United States it reached the highest level of absolute growth in the pre-war decade, and again in the decade of the twenties.

The upward surge began with relatively small accretions, which rapidly swelled into a flood, but the advancing tide has come to a sudden halt and the accretions are dwindling toward zero. Thus with the prospect of actual contraction confronting us, already we are in the midst of a drastic decline in population growth. In the decade of the twenties, the population increased by 16,000,000. In the current decade we are adding only half this number, roughly, to our population, and the best forecasts indicate a further decline in the decade which we are about to enter.

For us the rising tide of population growth continued until 1930; for western Europe it ended with the World War.

I should here like to introduce a chart showing the increments of population growth in the United States.

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, I desire to offer in evidence a chart entitled "Decennial Increases in United States Population," together with the accompanying table.

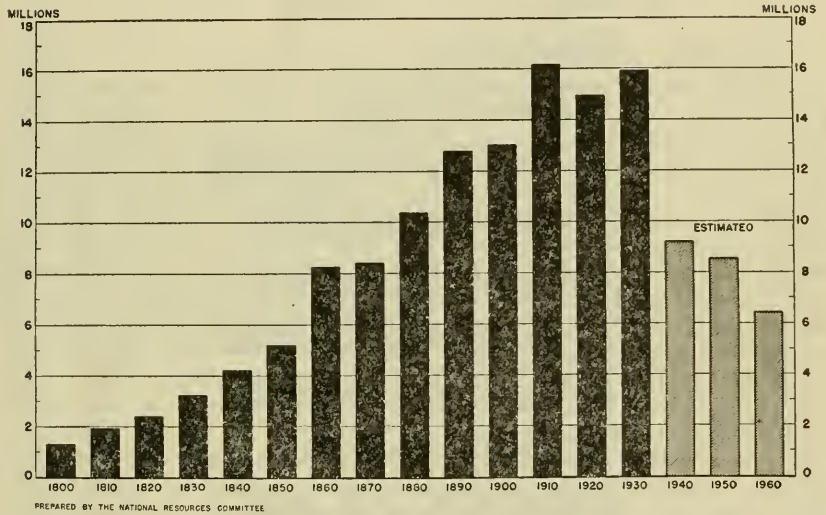
The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 542" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 4007.)

Dr. HANSEN. I should like to call your attention to the fact that this is not a chart showing the total population from decade to decade. It is a chart showing the decennial increases in population, the net increment of increase from decade to decade. You will

EXHIBIT No. 542

DECENNIAL INCREASES IN UNITED STATES POPULATION




notice that the decennial increase mounted decade by decade from 1800, and indeed the century before, if our chart had gone back that far, until 1930. The decade ending 1910 added to our population slightly more than the decade ending 1930, but they are substantially on the same level. The decade of the World War, ending 1920, had a somewhat smaller increase, experienced a somewhat smaller increase, than that of the preceding decade or that of the following decade.

By and large we may say, therefore, that the decennial increase of population continued to rise until the end of the decade 1930.

Now the bars to the right indicate the estimated decennial increases in the next three decades, as estimated by the National Resources Committee. They have also given us estimates that run further into the future, which would show a decline until eventually,

by about in the last quarter of the twentieth century, it would reach zero.

The point that I especially wish to stress with respect to this chart is the great importance of the amount of growth, the absolute amount of growth. It is not enough that an economy is simply growing. If the additional amounts of growth are smaller and smaller you have from that fact alone a depressing effect upon your economy. If your plant is built up to a point to take care of the growth, a fall in the growth of population means that you have already a depressional effect. It is in connection, let me say in somewhat technical terms, with a chart such as this showing the decline in growth that the well-known principle of acceleration in business-cycle discussions operates.

(The testimony of the witness was interrupted for the taking of pictures.)

Mr. NEHEMKIS. Dr. Hansen, you were speaking of the effect of acceleration. Will you continue please from that point?

GROSS AND NET CAPITAL FORMATION 1919–1937

Dr. HANSEN. I had finished the statement.

In this era of rapid territorial and population expansion, the United States was a capital-poor country. Not only were we able to find a ready outlet for our own savings, we imported besides a vast amount of capital from abroad. All this changed with the World War. From a capital-poor country we became a capital-rich country. Instead of a capital-importing country we became a capital-exporting country on a prodigious scale. The World War postponed the difficulties of the transition. The post-war decade for special reasons which I shall explore briefly offered temporarily adequate outlets for our savings. It gave us a period of precarious equilibrium between savings and capital investment. Thus, for a time enjoying high prosperity and relatively full employment, we were unaware of the underlying trends and forces which were converging upon us to produce the great depression.

Let me consider the major facts which made the twenties so prosperous. I have already said that we had an outlay on capital goods of all sorts of $18,000,000,000 per annum in the prosperous years from 1923 to 1929. This was the basis of our prosperity, and here I should like to introduce a chart showing the capital formation in this period.

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, I offer in evidence a chart entitled "Gross and net capital formation 1919–37," and the statistical tables which accompany it.

The CHAIRMAN. It may be received.

(The chart referred to was marked "Exhibit No. 543" and appears on p. 3507. The statistical data on which this chart is based are included in the appendix on p. 4008.)

Mr. HENDERSON. Mr. Nehemkis, the witness is going to distinguish between gross and net, is he not?

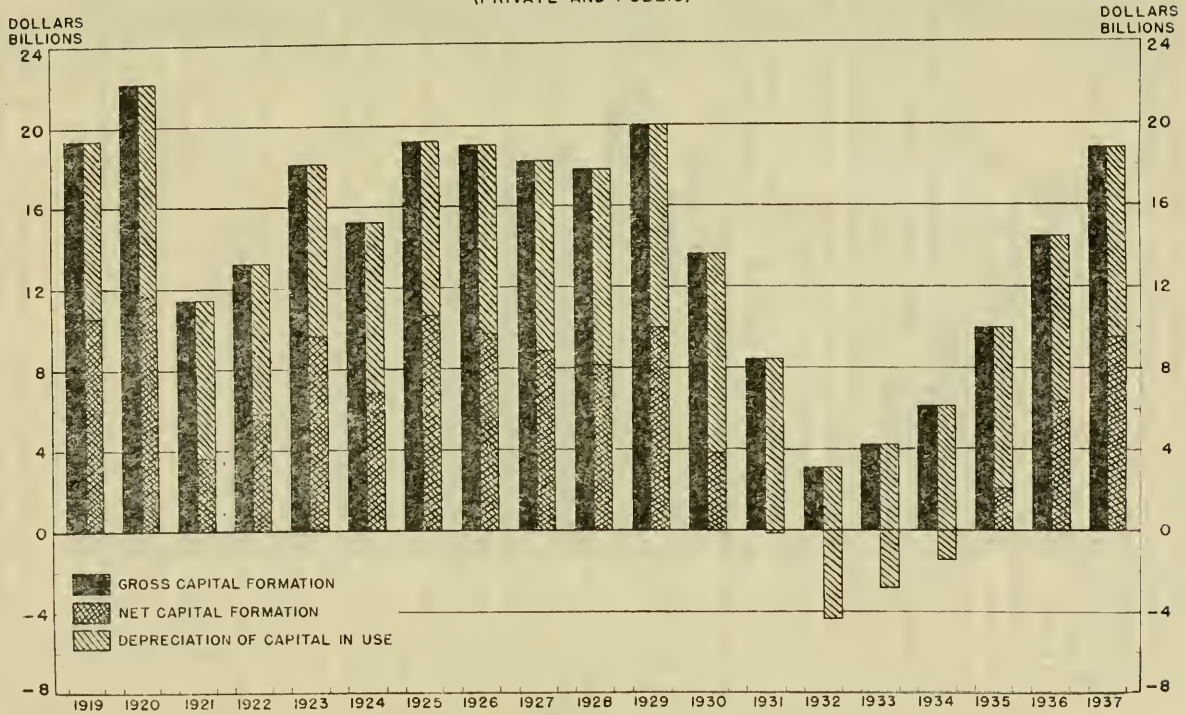
Mr. NEHEMKIS. I believe he will in the course of his explanation of the chart.

Dr. HANSEN. This is a chart showing the total capital outlays on plant and equipment of all sorts, on residential construction and on

EXHIBIT No. 543

# GROSS AND NET CAPITAL FORMATION 1919–1937

(PRIVATE AND PUBLIC)




PREPARED BY THE NATIONAL RESOURCES COMMITTEE

public construction. It shows not only the net outlays, the net capital outlays, that is to say the outlays on quite new developments, on expansion, but it also shows the capital outlays on replacements and renewals of plant and equipment.

The red area or the lower marked area (striped) indicates the net capital formation, the expansion of plant and equipment, the expansion of residential building and public works.

The CHAIRMAN. Now, you are referring to the lower area of the second half of the chart.

Dr. HANSEN. Of the second half of the chart.

The CHAIRMAN. Of each part of the column.

Dr. HANSEN. Yes. The blue area opposite the yellow area above the area to which I have just referred (meaning the part of the cross-barred area opposite the dotted area) represents the capital outlays on replacements and renewals of plant and equipment, of residences and of public works. By and large you will see that in the twenties that area of renewals and replacements was about a half of the area of expansion of capital outlays on plant and equipment, residences and public works. The next chart please.

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, I desire to offer in evidence a chart entitled "Business gross capital formation, capital consumption, and net capital formation 1919–37," together with the statistical data in support thereof.

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 544" and appears on p. 3509. The statistical data on which this chart is based are included in the appendix on p. 4008.)

Senator KING. Before leaving that other chart, if the committee will pardon me I would like to direct the attention of the witness to the line below what might be called the base line, which shows the years 1932 and 1933 and 1934. I suppose that refers to the depreciation of capital in use.

Dr. HANSEN. Which was not offset by outlays on maintenance and replacement.

Mr. NEHEMKIS. Will you point to those two bars that Senator King has referred to, please, Dr. Hansen, on the other chart?[1] Point them out to the committee, and will you be good enough to repeat your answer for the record.

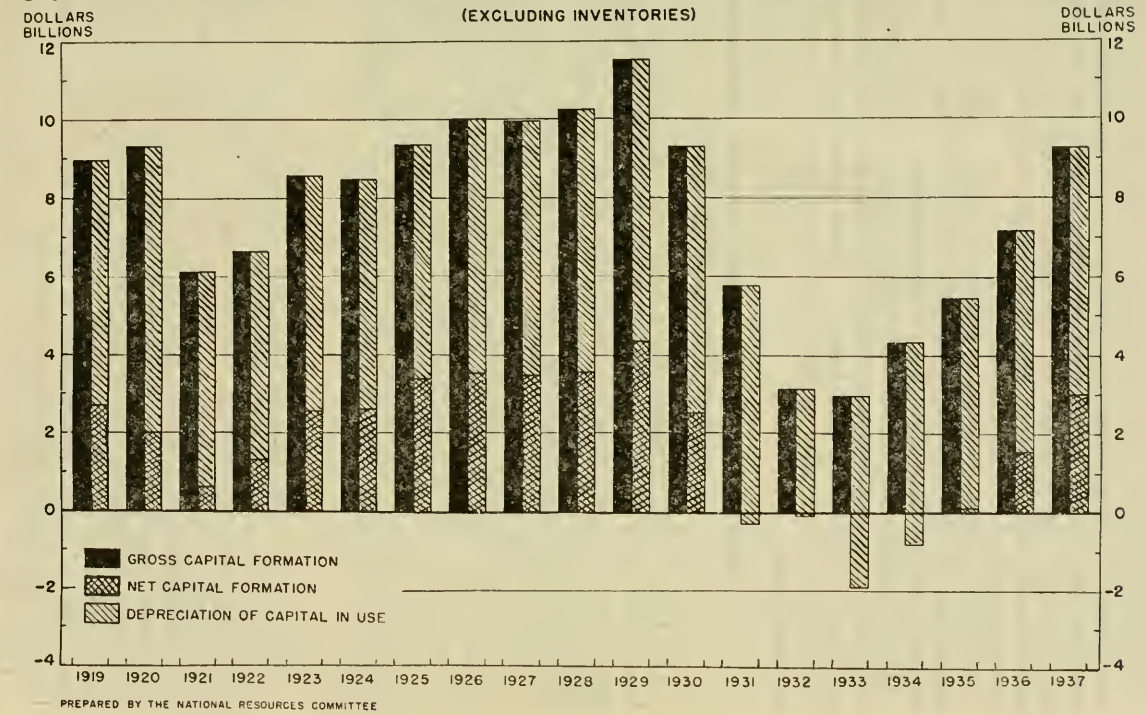
Dr. HANSEN. The upper bars to the right in each case refer to depreciation of capital in use, and this capital refers to all kinds of capital goods, whether business or residential or public. Up to the great depression, the depreciation was offset by renewals and replacement, but during some of the years of the depression, notably partly in '31, and especially in '32, '33, and '34, the expenditures on renewals and replacement was not equal to the depreciation of capital in use. In other words, there was a decline in our capital stock in those years.

Now it is a very difficult thing to measure, and as a matter of fact the depreciation of capital in use is measured in terms of accounting procedure, and one could enter into a good deal of discussion about the appropriateness of the usual accounting procedure with respect to depreciation.

[1] See "Exhibit No. 543," p. 3507.

EXHIBIT No. 544

# BUSINESS GROSS CAPITAL FORMATION, CAPITAL CONSUMPTION, AND NET CAPITAL FORMATION 1919-1937




PREPARED BY THE NATIONAL RESOURCES COMMITTEE

Senator KING. I was wondering whether that was obsolescence.

Dr. HANSEN. No; it means capital consumption which was not offset by replacements and renewals.

Senator KING. Does your chart indicate the value measured in dollars and cents, the loss from obsolescence, depreciation, and destruction of capital?

Dr. HANSEN. Yes; that is supposed to be represented by the yellow bars below the line. The blue bars, the bars to the left (cross-barred) indicate the extent to which the capital consumption was offset by renewals and replacement in each year, but the renewals and replacements were not adequate in those years to offset fully the capital consumption.

Mr. NEHEMKIS. Professor Hansen, before you leave that chart would you be good enough to explain the distinction between gross and net capital formation for the committee?

Dr. HANSEN. Net means the capital outlays on expansion of plant and equipment, on expansion of residences and public works, on new additional plant and equipment. Gross includes the expansion expenditures, but it also includes the capital outlays on replacements and renewals.

### SIGNIFICANCE OF THE CHANGE IN RATIO OF GROSS TO NET CAPITAL FORMATION

Dr. LUBIN. Mr. Hansen, may I for my own purposes clarify this last statement? Looking at the table that you submit with your chart,[1] am I to understand that in the year 1932 American industry, according to its accounting records, used up approximately $4,400,000,000 worth of capital that they didn't replace?

Dr. HANSEN. Yes, sir. There is one comment, however, that I should like to make. It is quite possible that those capital outlays which were made on renewals and replacements, introducing through those capital outlays news technics and improved machinery, may have left your total capital plant as productive as before, despite the fact that the accounting figures would indicate a decline in the total capital stock. It is quite possible the productive plant was fully as effective despite that seeming decline in the total capital stock.

Now, if we may turn to this other chart,[2] this chart refers exclusively to business capital outlays, which, however, is a broad term including manufacturing, mining, public utilities, railroads, and even trade and agriculture. It excludes, therefore, capital outlays on residential construction and on public construction. I may say also that this chart does not include outlays on inventories, nor does it include investments made in foreign countries. It includes, therefore, total capital outlays made by business of all sort, and the top bars refer to gross capital outlays, including not only expansion outlays but also replacements and renewals.

This chart also differentiates between net capital outlays and gross capital outlays.

I should like to call your attention particularly to the elements in this total volume of capital formation, the two categories to which I

[1] See supporting data for "Exhibit No. 543," appendix, p. 4008.
[2] "Exhibit No. 544," p. 3509.

have just referred, the net and the gross. They are different in this chart from the preceding one, as you will notice. It is, I think, a very striking fact that the gross business capital outlays consist to a very large extent of replacements and renewals. The area above the red bars or the bars to the right in the case of each set of bars (dotted), in the twenties was, roughly, about twice as large, that is to say, the area for capital replacements and renewals was about twice as large as the capital outlays on plant and equipment expansion.

It indicates that in the modern highly developed economy the capital outlays on mere replacement is enormously important as against the capital outlays on expansion, and I would call your attention to the fact that it is only the expansion outlays that can absorb new savings. The replacement and renewal outlays are financed by depreciation allowances—depreciation and depletion allowances. So that you may have a very great improvement in your capital equipment merely through the expenditure of depreciation and depletion allowances, without using any new savings at all.

I will refer to that later in my testimony.

Mr. NEHEMKIS. Dr. Hansen, before you continue, so that the record may be clear, in connection with your discussion of the preceding chart,[1] that is to say the chart which appeared on the easel at the right, you had occasion to use the phrase "capital stock." I take it you meant by capital stock physical plant, something you can kick with your feet?

Dr. HANSEN. That is right.

Mr. NEHEMKIS. As distinguished from a piece of paper which you crumple in your hand, is that correct?

Dr. HANSEN. That is right. If I may revert again for a moment to that earlier chart.

Senator KING. Those charts are not numbered, are they, Doctor, one, two, three, four?

Dr. HANSEN. They are not here numbered.

The CHAIRMAN. Let me say that the chart entitled "Gross and Net Capital Formation" is "Exhibit No. 543" and the chart entitled "Business Gross," etc., is "Exhibit No. 544."

### FACTORS RESPONSIBLE FOR THE PROSPERITY OF THE TWENTIES

Dr. HANSEN. I think before leaving this chart, "Exhibit No. 543," I should break up the gross into its constituent elements, which are as follows. This is the chart referring to total capital outlays, including not only business outlays but also outlays for residential and public construction. The total is broken up as follows: On the average in the good years, 1923 to 1929, 9.7 billions of dollars were spent each year on plant and equipment: 1.1 billions on inventories, 400 millions a year on net foreign investments. They are all included here: 4.4 billions a year on residential construction and 2.6 billions on public construction.

Of the total of about 18 billion, the very large figure of 7 billion was expended on residential construction and public construction.

Senator KING. What year was that?

[1] See "Exhibit No. 543," p. 3507

Dr. HANSEN. For the years 1923 to 1929, on the average. The prosperity of the twenties, to which I have especially been referring, rested heavily upon several factors, many of which are no longer present or present in an adequate degree. First, and this I regard as of quite extraordinary importance, there was residential building, which reached in this decade an all-time high; 8,750,000 urban residential units, not including farm units, were built in this decade, with a total expenditure of $33,500,000.

On residential construction, according to the figures of the Department of Commerce——

Senator KING (interposing). Twenty to '27?

Dr. HANSEN. For the entire decade, from '20 to '29, inclusive. I may say that the great bulk of this came from '23 to '29. The first 3 years of the decade ran relatively low, but here I have included the entire decade in these figures, and they are for urban units, not including farm.

Residential construction fed on an accumulated backlog of housing requirements caused by the virtual cessation of house building during the war. It fed, moreover, on the great growth of population in this decade, which amounted, as I have already said, to 16 million. From decade to decade throughout our history, the increase in the number of dwellings has maintained a remarkably close relation to the increase in population. From 1916 to 1922 the population of the highly industrialized section of the United States, the urbanized section comprising Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Ohio, Michigan, and Illinois, increased 10 percent in 6 years.

From 1922 to 1928, another 6-year period, there was a further increase of 10 percent in this area. Then came with dramatic swiftness the change in the rate of growth. From 1930 to 1936, again a 6-year period, the population of this area increased only 3 percent. If one takes the population of the entire country into consideration, the percentage increase from 1922 to 1928 is 9.1 percent, compared with 4.3 percent from 1930 to 1936. Thus the percentage rate of increase for the urbanized area is less than one-third of that of the twenties, and for the entire country, below one-half.

During the great depression, accordingly, there did not accumulate any such backlog of housing shortage as had developed in the period from 1916 to 1922, and there was not the pressure from a continued rapid growth in population such as occurred in the period of 1922 to 1928. Objection has been made sometimes to this argument, on the ground that housing requirements depend not on the size of the population but on the number of families. It is true that the number of families, owing to the current abnormal age distribution, has increased more rapidly than population, but it may be doubted whether this is nearly as significant a fact as the rate of population growth.

About this there may be certainly difference of opinion. Young childless couples may double up with their parents and they get along quite well with one or two rented rooms. For this and other similar reasons, it seems to me that the rate of population is at least equally significant as the rate of increase of the number of families.

In the second place there was a high volume—I am still referring to the special factors in the twenties—of public construction, financed

heavily by State and local borrowing. State and local debt increased in this period at the rate of $1,000,000,000 a year. Large capital outlays were made on roads, schools, and other public improvements. In the third place, there was the outlet for savings in the foreign loans and investments which in part provided foreign countries with a purchasing power to buy from us an excess of exports over imports, amounting to $10,600,000,000 in the decade from 1920 to 1929.

Fourth, there was the growing importance of consumer-installment credit, which financed the purchase of durable consumers' goods and which reached the quite extraordinary level of 11 billion by 1929.

Mr. HENDERSON. Dr. Hansen, would you mind if we struck out "consumer-installment credit"? As I recall, that figure was not on an installment payment basis.

Dr. HANSEN. That is right; it should be consumer credit. Fifth, there was the prodigous growth of the great automobile industry, together with all the related industries which it fostered and sustained, including rubber, oil, glass, steel, road equipment machinery, cement, and other materials entering into the construction of the wholly new network of hard-surfaced roads. These, as I see it, are the five main props to the prosperity of the 1920's. Their income-creating force was, in large part, spent by 1929.

It is this, above all, that explains, it seems to me, the stagnant thirties, in contrast with the booming twenties. With the growth of population only half that of the twenties it is not so surprising that residential building in the last 4 years has been running along at a level less than a half or approaching a third that of the predepression period.

The outlet for foreign loans and investments has been almost totally absent during the past decade, and the prospects are far from bright in the years ahead. Consumer credit declined heavily from 1929 to 1933, and only regained the 1929 level by 1937. State and local capital outlays fell from $2,335,000,000 in 1930 to $1,300,000,000 in 1936. The net outstanding State and local debt declined by 46 millions from 1932 to 1938, while cash balances of the State and local bodies increased by 1.6 billions. Thus the net contribution of State and local bodies to the national income stream has been absent in the current decade.

In the decade of the twenties the great automobile industry gave a tremendous upward push to our entire economy, running through a vast range of related industries. While this industry still occupies an extremely important place in our economy, there is this highly significant difference, that it is no longer growing and when a revolutionary new industry like the railroad in the last century, or the automobile in our time, after having initiated in its youth a powerful upward surge of plant expansion in all the basic industries which serve its needs, after such an industry reaches maturity and ceases to grow, as all industries finally must, the whole economy must experience a stagnation, unless indeed new developments equally far-reaching take its place.

### EFFECT OF INDUSTRIAL MATURITY ON THE VOLUME OF CAPITAL FORMATION

Dr. HANSEN. It is not enough that a mature industry continues its activity at a high level on a horizontal plane; the fact that new railroad mileage continued to be built at a high rate throughout the seventies

eighties, and nineties was not sufficient. It is the cessation of growth which is disastrous, for when they have ceased to grow there is no further need for plant expansion and when giant new industries have spent their force, it may take a long time before something else of equal magnitude emerges. In fact, nothing of equal magnitude has emerged in the decade in which we are now living. I regard the development of new industries as an extremely important matter.

Certainly no one can say at this moment what great new developments the future may hold in store, but I should like to call attention to what seems to me to be a fact, namely, that economic progress, even in the nineteenth century, came by spurts and not at a uniform rate. Such notable students of economic development as Spiethoff, Wicksell, Cassel, Schumpeter, and Robertson stress the discontinuity, the jerkiness and lumpiness of economic progress.

The history of the last 200 years affords no basis for the assumption that the rise of new industries proceeds at a steady pace. But beyond the immediate effect upon the so-called business cycle is the larger problem of the effect of the presence or the lack of new industries upon the vigor of investment booms. In periods when great new industries are rising to maturity over several decades, it is likely that booms will be very vigorous and carried to high points, and depressions will be short-lived. And similarly in periods when great new industries have reached their maturity and ceased to grow, and equally important new industries have failed to take their place, it is likely that booms will be less vigorous, prosperity relatively short-lived, and depressions deep and prolonged.

Thus, throughout the nineteenth century the emergence, development, and growth of giant new industries has played an enormous role, not only in the cycle movement itself, but also in the vigor and intensity of America's booms, and the depth, severity, and length of depression periods. It is my view that the deep and prolonged depression of the nineties relates to the cessation of growth of the railroad industry. There was a temporary lull before the electrical and automobile industries emerged, and similarly in the decade of the thirties, in which we are now living, we are having a similar experience. The great automobile industry has risen to maturity, and no comparable new industry has appeared to fill the gap. It is my growing conviction that the combined effect of the declining population growth, together with the failure of any really important innovations of a magnitude sufficient to absorb large capital outlays, weigh very heavily as an explanation of the failure of the recent recovery to reach full employment. Other factors are certainly important, particularly our failure to grapple effectively with certain specific situations, such as those presented by the railroads or the public utilities, or building construction.

It might be inferred from what I have said that in the recovery of 1935–37 no substantial capital outlays were made. This is not the case, as indeed the charts which I have presented show. From the best available evidence, it appears that in 1936–37 capital outlays made on industrial plant and equipment were on a scale quite comparable with those of 1927 to 1929—that is, the capital outlays on industrial equipment were quite comparable in '37 to those made in 1927–29. The important single gap, and I would like to stress

this, in the recovery of '36–'37, was residential construction, and in part commercial construction. Capital outlays on railroads and public utilities, however, also lagged behind the '27–'29 level. The large capital outlays on industrial plant and equipment in 1936–37 may appear surprising if one accepts my thesis with respect to declining population growth and the lack of important new industries. One must remember, however, that we had passed through a long period of deep depression, so that there had accumulated a considerable volume of depreciation, depletion, and obsolescence, together with the new capital requirements which the rising national income stimulated, but new developments were not available on a sufficiently large scale to sustain for long the high capital outlays of 1936–37, or to push them to sufficiently high levels in view of the lag, particularly of residential building.

Here I should like to introduce a chart on construction.

THE VOLUME OF CONSTRUCTION 1920–1937

Mr. NEHEMKIS. Mr. Chairman, I desire to offer in evidence a chart entitled "All Construction in the United States, 1920–37." The statistical tables accompanying this chart will be submitted to you, sir, at a later time. I therefore request that the clerk be instructed to designate an appropriate number for this table when it is introduced at a later time.

(The chart referred to was marked "Exhibit No. 545" and appears on p. 3516. The statistical data on which this chart is based are included in the appendix on p. 4009.)

The CHAIRMAN. Will it be introduced in time to have it printed in the record, accompanying the chart?

Dr. HANSEN. This chart, Mr. Chairman, presents the total construction, private and public, in the period from 1920 to 1938. It shows the extraordinarily high level of construction in the good years of the twenties, the drastic decline, and particularly the failure of construction to recover in the relatively prosperous years of 1936 and 1937. In my view, it is particularly the failure of residential construction, which accounts for the anemic character, if we may say so, of the prosperity of 1936–37.

I should like to revert again to this earlier chart.

The CHAIRMAN. You are referring to "Exhibit No. 543"?

Mr. NEHEMKIS. That is correct, sir.

Dr. HANSEN. You will notice that the gross capital formation, including business, capital and public, was as high in 1937 as on the average in the good years of the twenties, but I should like to call attention to what I regard as a very important fact with respect to that high figure. Over $4,000,000,000 of that capital formation in 1937 was increase in inventories—over 4 billions was an increase in inventories.

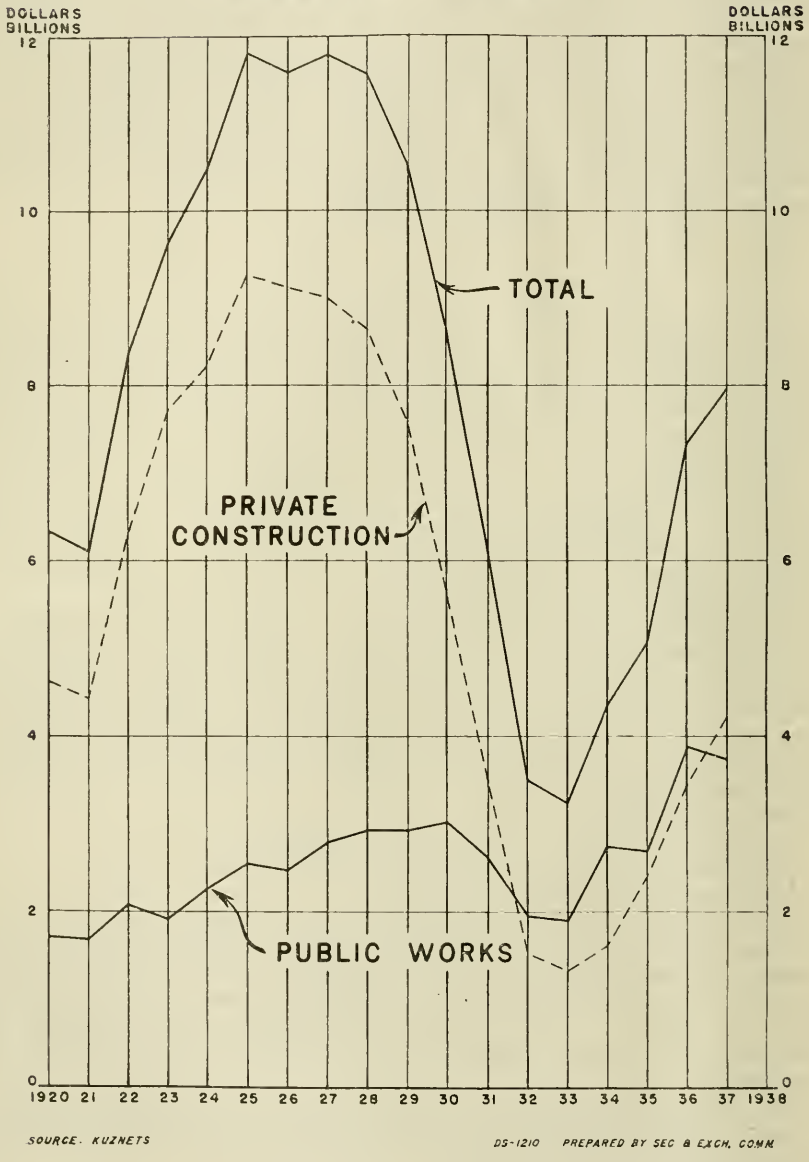
The CHAIRMAN. May I break the rule which I laid down for all of us by asking you how much of that outlay was public outlay, as compared with private outlay?

Dr. HANSEN. You mean outlay on inventories?

The CHAIRMAN. No; for the whole, as compared with the similar division in the twenties.

EXHIBIT No. 545

# ALL CONSTRUCTION IN U.S. 1920 - 1937




SOURCE: KUZNETS

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Dr. HANSEN. I can give you those figures, Mr. Chairman. I haven't them available in my manuscript at the moment. We can insert them in the record.

The CHAIRMAN. They are significant, are they not?

Dr. HANSEN. They are significant. I may say that the public construction was a little higher, as I recall it, in '36 than in the good years of the twenties, but not much higher than the good years of the twenties, and that will in effect answer your question, I think.

Mr. NEHEMKIS. Dr. Hansen, if you will just indicate on "Exhibit No. 545" all construction with your pointer, I think the chairman will see briefly what it is he asked you.

Dr. HANSEN. "Exhibit No. 545" does show the value of public works in '36 and '37, as compared with the twenties. It runs on a somewhat higher scale. It amounts to not quite half of the total construction in 1936–37.

Mr. FRANK. Public works in the earlier period included a large amount of State and municipal public works, a larger amount than in the latter period?

Dr. HANSEN. Yes, sir; a very much larger amount of State and municipal construction, and a very much smaller amount of Federal construction. The Federal offset the State and local in the period '36 and '37.

Mr. NEHEMKIS. There will be offered in evidence, Mr. Commissioner, statistical data and a chart which will show you that point very clearly, at a later time.[1]

Dr. HANSEN. Now, in referring to the surprisingly large total outlays, total capital outlays in 1937, compared with the twenties, I was calling attention to the fact that over four billions of that was increase in inventories. I would remind you that the residential construction in that period was only about one-third of the volume of residential construction in the twenties. Had we had four and one-half billion of residential construction in '36–'37, as we had in the twenties, sustained over a number of years, I think we could be very sure that we would have had a very much more vigorous and sustained recovery in '36 and '37 than we had.

The large capital formation which went into inventories was necessarily of a precarious sort.

It was, of course, stimulated by various factors, by the rearmament program which lifted certain prices, and by the drought which lifted certain prices, and a price rise tends to stimulate inventory accumulation.

I may say also that filling the gap, so to speak, which was left by the failure of a high volume of residential construction in '36–'37 were large expenditures in '36 on the soldiers' bonus, in '36–'37 on relief. We did not have the solid underlying basis of capital outlays on such things as residential construction in '36–'37 which we had in the twenties, so that I think one must qualify very much this figure

[1] See "Exhibit No. 614" entered in the record during hearings held May 22, 1939, supra, p. 3779.

of a very large total capital outlay in '36–'37. When we take out the inventories it will be seen that the capital outlays in '36 and '37, and we see that in '36 there was also a very large increase in inventories, amounting to over $2,000,000,000—we see that the capital outlays ran considerably below the period of the good years of the twenties. So I wish to stress particularly the failure of residential construction, and that links up with my thesis about the importance of population growth.

Senator KING. May I ask a question? Do you differentiate in your explanation of inventory between personal property, such as commodities which might be produced, and real estate?

Dr. HANSEN. These are accumulations of business inventories.

Senator KING. That accumulation of business inventories would relate solely to goods?

Dr. HANSEN. Yes; to goods.

Mr. NEHEMKIS. Something one buys for the shelf.

Dr. HANSEN. Yes, sir.

Mr. HENDERSON. And raw materials.

Dr. HANSEN. And raw materials used in manufacture.

Mr. FRANK. Professor Hansen, before you conclude, just one question for clarification. When you speak of savings, you are referring to the savings of individuals, not the amounts retained by corporations in their depreciation reserves, which also might in a certain sense be called savings?

Dr. HANSEN. No; I think I would disagree with you, Commissioner. Gross savings include individual savings, the retained earnings of corporations, and depreciation and depletion allowances. Now, new savings include individual savings and the savings of corporations, the new savings of corporations, but new savings excludes the depreciation and depletion allowances.

Mr. NEHEMKIS. Mr. Chairman, this witness' testimony for the time being is concluded. We have no further questions and we will recall him at the committee's pleasure.

The CHAIRMAN. Perhaps it would be well for Dr. Hansen to resume the stand at least temporarily when we reassemble after lunch, in order that he may be questioned by members of the committee if they so desire.

Mr. NEHEMKIS. Very well.

The CHAIRMAN. The committee will stand in recess until 2:30.

(Whereupon, at 12:45 o'clock, a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:35 p. m., on the expiration of the recess.

The CHAIRMAN. The committee will please come to order. In opening this hearing this morning I took occasion to refer to the message of the President of last April, in which he had recommended the study which this committee has undertaken, and in making this reference I quoted two sentences from the President's message, one being the sentence in which he referred to idle factories and idle men.[1] It was a curious coincidence that just a few moments ago I received a letter

[1] Supra, p. 3493.

from the President dealing with exactly the same subject matter. It seems to me to mark the objective, the principal objective of this study, and I think it is of the utmost importance that all the people of the country should know exactly what the President had in mind when he recommended this study, and the high hopes he entertains for the development of facts in which we are now engaged.

The letter is dated at the White House, Washington, May 16, 1939:

DEAR JOE: In my message to the Congress initiating the work of the Temporary National Economic Committee, I had occasion to say that "idle factories and idle workers profit no man." It may equally be said that idle dollars profit no man. The present phase of the hearings before the committee bear directly upon this problem.

It is a matter of common knowledge that the dollars which the American people save each year are not yet finding their way back into productive enterprise in sufficient volume to keep our economic machine turning over at the rate required to bring about full employment. We have mastered the technique of creating necessary credit; we have now to deal with the problem of assuring its full use.

In the series of hearings which the Securities and Exchange Commission is to hold before your committee, I take it that a major problem of your committee will be to ascertain why a large part of our vast reservoir of money and savings have remained idle in stagnant pools.

Is it because our economy is leaving an era of rapid expansion and entering an era of steadier growth, calling for relatively less investment in capital goods?

Is it because of lag, leak, and friction in the operation of investment markets which pervert the normal flow of savings into nonproductive enterprise?

These are questions for your committee to answer.

I know of no more urgent ones in the country today.

The hearings before your committee, I hope, will assume the task of analyzing the financial machine in its relation to the creation of more needed wealth. We know that the mechanism can be improved. Improvement can only be made on a basis of clear analysis. Having made that analysis, I hope that your committee will then be able to indicate ways by which the machine may be made to function more efficiently.

We have an immense amount of wealth which needs to be created in this country. Much of it can be created through private enterprise. Some of it can properly be created through quasi-public agencies. The problem is to use our added savings and increased credit to get this wealth moving—that is, to get it now in productive enterprise—and, at the same time, to make savings available for use in all categories of private enterprise, as well as for the great and recognized enterprises which can command capital, but have less actual need of capital than many smaller but equally deserving enterprises. There is also the problem of determining how credit can best be made available for instrumentalities of local government and for those quasi-public enterprises which must do the work which cannot be done by private enterprises.

We have developed several methods of connecting money with men and materials so as to get useful work done. We shall need to use all of these opportunities, or, if you choose to put it differently, we must meet all of the demands made on our system, if we are to have lasting prosperity. It is our task to find and energetically adopt those specific measures which will bring together idle men, machines, and money. In proportion as we succeed we shall strengthen the structure of democratic economy.

In commenting upon the President's message this morning, I pointed out that a justifiable inference from what he said in that message was that he was primarily interested in promoting the investing of private funds for private profit, and in the development of free, private, independent enterprise. That comment seems to me to be amply borne out by the letter which has just now been read into the records of this committee.

(The letter from President Roosevelt was marked "Exhibit No. 546' and is included in the appendix on p. 4009.)

The CHAIRMAN. A significant phase of this problem which must appeal to all students of the problem is the difference between individual enterprise and collective enterprise. That I conceive to be one way of differentiating between little business and big business. Little business is that business which is owned and operated by the same persons; big business, as we commonly know it, is that enterprise which is owned by one group and operated by another. I think it can be said without error that big business for the most part has not suffered anything like little business has suffered. It is in little business that we have one of the biggest lags, and therefore I am hoping that the results of the presentation will show a way to stimulate this private, individual enterprise which apparently is so lacking in our system at this time.

Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. I am, sir.

The Securities and Exchange Commission calls as its next witness Dr. Lauchlin Currie.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in these proceedings will be the truth, the whole truth, and nothing but the truth, so help you God?

Dr. CURRIE. I do.

Mr. NEHEMKIS. Before Dr. Currie commences his testimony, Mr. Chairman, I should like to briefly describe what Dr. Currie will present to this committee. He shall be asked to testify with respect to the magnitude of the various outlets for savings since 1921 and the relation of the total to the national income. In a sense, Dr. Currie, and I trust he will forgive me for this characterization, will be a fact factory, an appendix, as it were, to the material presented this morning by Dr. Hansen.

It is important for the sake of the record that the material that Dr. Currie will deal with go in at this time. It is essentially the kind of statistical data that we all have to study in our leisure, but it does fit in logically at this moment, and when Dr. Currie has completed his testimony, I should like, then, with the leave of the committee, to recall Dr. Hansen, who will comment upon and intepret that material.

The CHAIRMAN. I wonder if any member of the committee would prefer to question Dr. Hansen before Dr. Currie makes his statement. Are there any questions in the mind of anybody here? Apparently not. You may proceed.

## TESTIMONY OF LAUGHLIN CURRIE, ASSISTANT DIRECTOR, DIVISION OF RESEARCH AND STATISTICS, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, WASHINGTON, D. C.

Mr. NEHEMKIS. Dr. Currie, you are, I believe, Assistant Director of Research and Statistics of the Federal Reserve Board; is that correct?

Dr. CURRIE. That is right.

Mr. NEHEMKIS. You have been at one time instructor in economics at Harvard University; is that correct?

Dr. CURRIE. That is correct.

Mr. NEHEMKIS. You have also been professor of international economics at the Fletcher Graduate School of Law and Diplomacy; is that correct?

Dr. CURRIE. Correct.

Mr. NEHEMKIS. You have also been associated in a professional capacity with the Treasury Department of the United States; is that correct?

Dr. CURRIE. That is correct.

Mr. NEHEMKIS. Are you prepared, Dr. Currie, to testify with respect to the matters embraced in the statement which I made previously to the committee?

Dr. CURRIE. I am.

Mr. NEHEMKIS. And were the several charts to be offered during the course of your testimony prepared under your direction?

Dr. CURRIE. They were.

Mr. NEHEMKIS. Are they based upon statistical data which you believe to be authentic and reliable?

Dr. CURRIE. They are.

Mr. NEHEMKIS. Please proceed, then, Dr. Currie, indicating as you go, the charts and the data that you wish to present to illustrate and support your testimony.

### RELATION OF SAVINGS TO INVESTMENT

Dr. CURRIE. Mr. Chairman and members of the committee, I have been asked to present information relating to the magnitude of the various outlets for saving since 1921 and the relation of the total to the national income. The data which I shall present have been worked up in the Division of Research and Statistics of the Board of Governors of the Federal Reserve System, of which Dr. E. A. Goldenweiser is the Director. Being mostly of a preliminary nature, the data have not as yet been published in the present form.

It may make it easier to follow the charts and figures presented and to appraise their significance if they are prefaced by a brief description of the conception of the way our economy works which underlies the choice of charts and figures placed before you.

If we think of the national income as a stream of goods and services, all represented by their dollar equivalents, we can take the next step and consider the factors that tend to keep the stream going uninterruptedly, and the factors that tend to obstruct and divert the stream. When a person earns wages and spends them for living expenses as rapidly as he receives them, there is no interruption. When a corporation takes in money in exchange for the goods it produces and disburses it at the same rate for wages, materials, power, and dividends, there is no interruption.

When, however, a part of the wages received or of money realized for sales is not disbursed but is retained by the individual either in the form of cash or of deposits, or is used to pay off debts, or even if it is invested in securities, there may be an interruption in the even flow of the money stream. Whether there is or is not depends on whether the money thus withdrawn is kept idle, or hoarded, or whether it is returned to the stream through disbursement for new

plant and equipment, or for renovation or enlargement of existing plant, or offset by the expenditure of an equal amount. The money thus restored continues to be a saving by the individual, but it is no longer a withdrawal from the income stream.

The analysis underlying the charts and tables here presented, in other words, separates the act of saving, which when taken by itself represents a withdrawal from the income stream, from the act of expenditure which restores the money to the stream. Such a separation is necessary for a clear analysis and is logical because in most cases offsetting expenditures are made by groups different from the original savers. The principal exception is industrial capital expenditures financed out of corporate income and depreciation allowances, and even there the act of saving and the actual capital expenditure may be quite unrelated to each other.

The selling price of all goods produced covers not only the current expenses of wages and materials but also depreciation and depletion charges, taxes, interest, and profits. Some of these funds are retained by business; others are paid out to individuals and some of these, especially interest and dividends, are likely to be saved. Hence, only a portion of the gross national income is available for consumption. If the stream of money payments is not to decline, an amount equivalent to the portion of the gross national income not spent on consumption must be spent on plant and equipment, etc. It is proper, therefore, to speak not only of outlets for saving but of offsets to saving.

It is not implied in this analysis, as is sometimes believed, that there is something uneconomic or antisocial in the act of saving. From the point of view of an individual it is a natural and prudent act, and from the point of view of the economy as a whole it is necessary in order to provide a source of funds for the replacement and expansion of our plant and equipment. The point is simply that if money is withdrawn from the income stream by saving, it has to be offset by an equal expenditures on plant, etc., if the flow of money payments and the total demand for goods of all kinds is not to be interrupted.

The most commonly accepted definition of saving, as applied to the Nation as a whole, is that it is the difference between the national income and the amount spent out of that income on consumption. Since the national income is the value of all goods and services produced in a period, the total volume of saving is also the difference between the value of goods and services produced in a period and the value of goods and services consumed. In other words, the volume of expenditures on plant and equipment, construction, etc., may not only be regarded as an offset or outlet for current saving, but it is also a measure of saving as just defined.

It is obvious that the larger the portion of a given national income that is withheld from consumption, the larger must be the expenditures that represent offsets to saving, if the national income is not to decline. To state the reverse of this proposition, the larger the portion of income that is spent on consumption, the smaller need be the volume of capital expenditures to sustain the given national income. How much income will result from a given increase in capi-

tal expenditures depends on the proportion of the additional income that will be consumed and the proportion that will be saved.

Still another inference may be drawn from this line of reasoning. If it can be established what proportion of an assumed national income will be saved, or withheld from current consumption, it is also established how large the outlets for or offsets to saving will have to be to attain and sustain that national income. Hence the problem of maintaining full employment is the problem of securing sufficient outlets for the saving that will accompany full employment.

The following types of expenditures are generally considered to represent the major outlets for or offsets to gross saving:

1. Expenditures on plant and equipment charged to capital account: These are financed from such sources as depreciation allowances, retained earnings, borrowings, and stock issues.

2. Private housing expenditures: Since the bulk of expenditures on new residential construction is financed by borrowing, and little comes out of current income, it is customary to consider such expenditures as outlets for saving.

3. Value of the change in inventories: An increase in inventories represents an increased value of goods produced but not purchased out of final consumer income. The monetary effect of a change, while it is taking place, is strictly analogous to the effect of plant and equipment expenditures.

4. Net additions to disposable cash income attributable to public bodies: This category is chosen rather than expenditures on public construction because we are here more interested in the dynamics of the flow of income than in the measurement of the addition to the durable goods of the community. Public expenditures that add to disposable cash income more than tax receipts decrease disposable cash income, constitute an offset for an equivalent amount of current saving.

5. Net foreign balance on current account: This represents the excess of payments received by us from foreigners over payments made by us to foreigners on other than capital movements. An excess is a net addition to disposable domestic cash income and hence may be regarded as an offset to domestic saving. It represents goods produced and not sold to domestic consumers and hence, for present purposes, is analogous to plant expenditures.

6. Net change in consumer credit: An increase in this category might either be treated as negative saving or as an outlet for current saving. The latter alternative is adopted here.

The figures presented below differ in reliability and are subject to revision. They are believed, however, to give a reasonably accurate approximation of the total income-producing expenditures that offset saving, and to give a more accurate approximation of the magnitude of current gross savings, i. e., of gross income not spent in consumption, than is now possible to obtain by direct measurement. Most of the series are available only on an annual basis.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart entitled "Income-Producing Expenditures That Offset Saving," and the accompanying tables. I ask that the clerk be requested to mark this chart and the accompanying table.

The Chairman. The chart may be received.

(The chart referred to was marked "Exhibit No. 547" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 4010.)

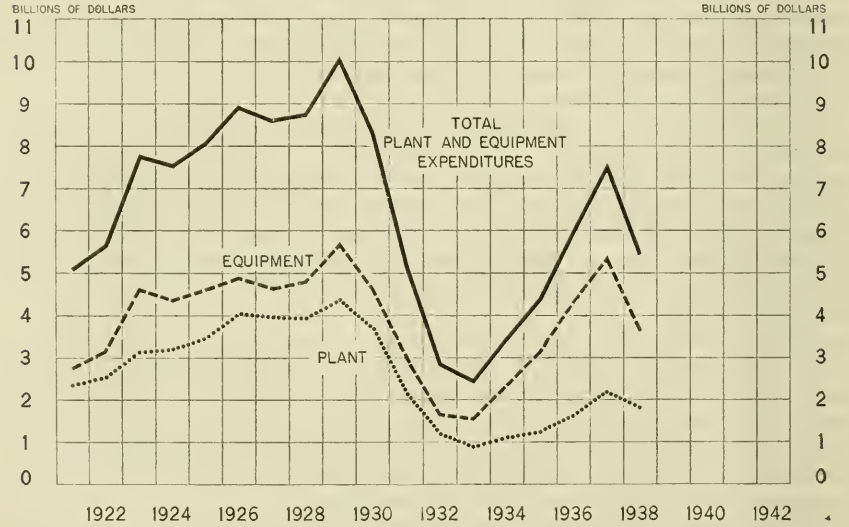
OUTLETS FOR SAVING 1921–1938

Dr. Currie. The first five charts I am about to present bring together in finer details these six categories I have just mentioned as making up the total of the type of expenditures that provides an outlet for or an offset to current saving, and the total is by inference a measure of the total saving of the community.

In the first chart, "Exhibit No. 547," I plot all plant and equipment expenditures for industrial, commercial, and agricultural purposes broken down into plant and equipment.

Exhibit No. 547

INCOME-PRODUCING EXPENDITURES THAT OFFSET SAVING




It will be observed that equipment expenditures recovered far better than plant expenditures in the recent recovery, and in 1937 approximated 94 percent of the peak 1929 level. Plant expenditures on the other hand recovered only about 50 percent of the 1929 level.

Another interesting fact that will be observed from this chart is the smallness of the increase in total equipment expenditures from 1923 to 1928. Despite rapidly increasing production, despite rapidly increasing consumption, and despite the smallness of the increase in equipment expenditures, there was no evidence of any growing strain on our productive facilities.

Mr. Nehemkis. Mr. Chairman, I offer in evidence a chart entitled "Income-Producing Expenditures That Offset Saving," a continuation of the previous chart Dr. Currie referred to, together with the accompanying table.

(The chart referred to was marked "Exhibit No. 548" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 4010.)

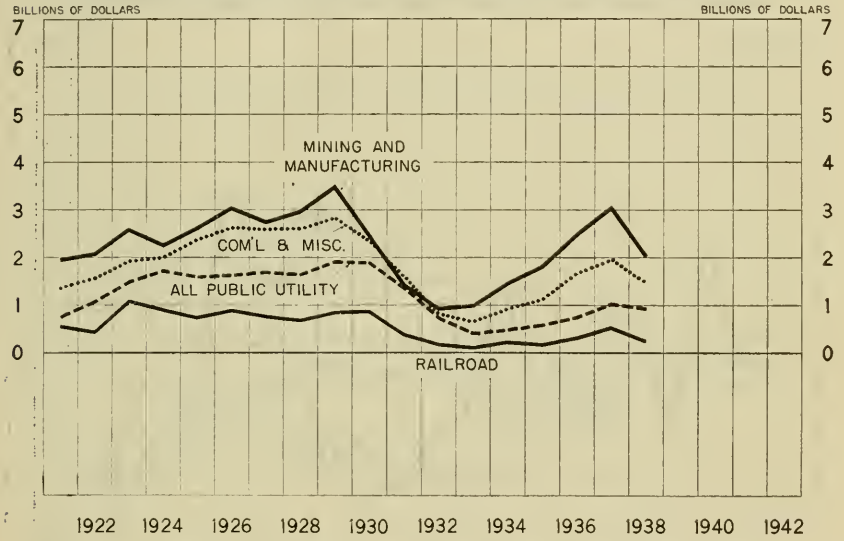
The CHAIRMAN. The chart and table may be received.

Dr. CURRIE. "Exhibit No. 548" is a break-down of income-producing expenditures that offset saving into four categories, mining and manufacturing, commercial and miscellaneous, all public utility (which includes electric power, telephone, transit, gas, and others), and railroad.

It will be observed that by 1937 mining and manufacturing plant and equipment expenditures together exceeded the 1928 level and was exceeded only by the peak 1929 level.

EXHIBIT No. 548

INCOME PRODUCING EXPENDITURES THAT OFFSET SAVING — CONTINUED




Mr. HENDERSON. Will you say that again, Dr. Currie?

Dr. CURRIE. It will be observed that in 1937 the total volume of plant and equipment expenditures in mining and manufacture exceeded the 1928 level and was exceeded only by the peak 1929 level.

Commercial and miscellaneous did not recover so well. That was almost entirely attributable to the failure of commercial building to come back. Commercial building approximated one billion two in 1929, and only three hundred seventy million in 1937.

Mr. HENDERSON. Does that include office buildings, hotels, and the like?

Dr. CURRIE. Yes. The railroads' equipment expenditures, as I shall show in a later chart, came back by '37 to the level of the late twenties. The main gap there is attributable to expenditures on way and structure, which did not come back.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence a chart entitled "Income-Producing Expenditures That Offset Saving," in continua-

tion of the discussion you have been hearing, together with the accompanying table.

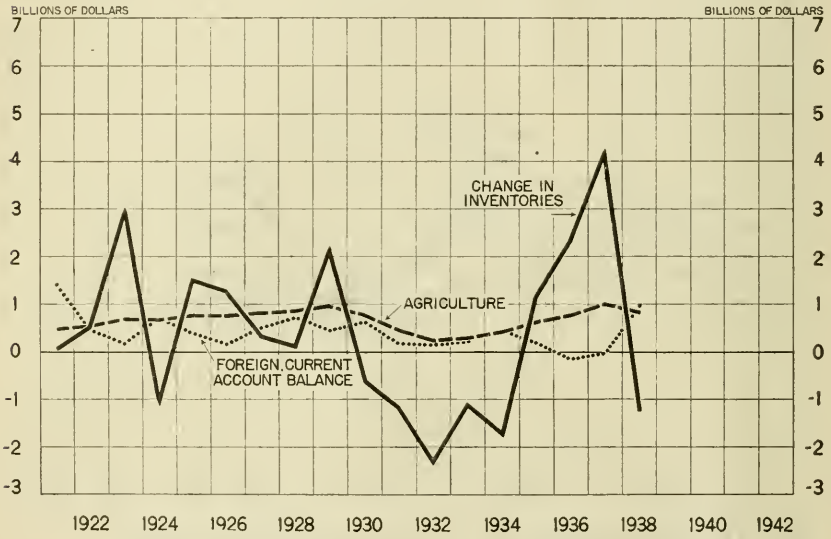
The CHAIRMAN. The chart and table may be received

(The chart referred to was marked "Exhibit No. 549" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 4011.)

Dr. CURRIE. In "Exhibit No. 549" I show the value of the change in inventories yearly, the change in the foreign current account balance, and the absolute amount of expenditures on agricultural plant and equipment. The level of foreign current account balance throughout the twenties was generally associated with the large volume of foreign loans we made at that time which tended to increase our exports relative to our imports. It went to a negative figure in '36 and '37,

EXHIBIT No. 549

INCOME PRODUCING EXPENDITURES THAT OFFSET SAVING - CONTINUED




and it became a very high positive figure in 1938, which has been generally associated with a drastic decline in imports attributable to the business recession here.

Agricultural expenditures for plant and equipment, it will be observed, by 1937 got back to the 1929 level.

Mr. HENDERSON. That means then that mining and manufacturing and agriculture spent almost as much as offsets to saving in 1937 as they did in the high years of the late twenties?

Dr. CURRIE. That is right.

Mr. HENDERSON. And so the lag in the total is due to other items?

Dr. CURRIE. That is right.

Mr. HENDERSON. And the totals in "Exhibit No. 549" are embodied in "Exhibits Nos. 547 and 548"? This is merely a break-down of part of "Exhibit No. 547"?

Dr. CURRIE. No; current balance and change in inventories are not included in "Exhibit No. 547." "Exhibit No. 547" is just plant and

equipment; but agriculture is included. I think the only final observation I would make on this chart is to draw attention to the very large increase in inventories in 1936 and particularly in 1937. The increase in inventories in '37 was the highest for any post-war year since 1920—$4,000,000,000.[1]

The CHAIRMAN. Do I understand from these charts that the expenditures of agriculture during this period represented by the charts have been at least equal, if not greater than expenditures for railroads?

Dr. CURRIE. Yes; that is true.

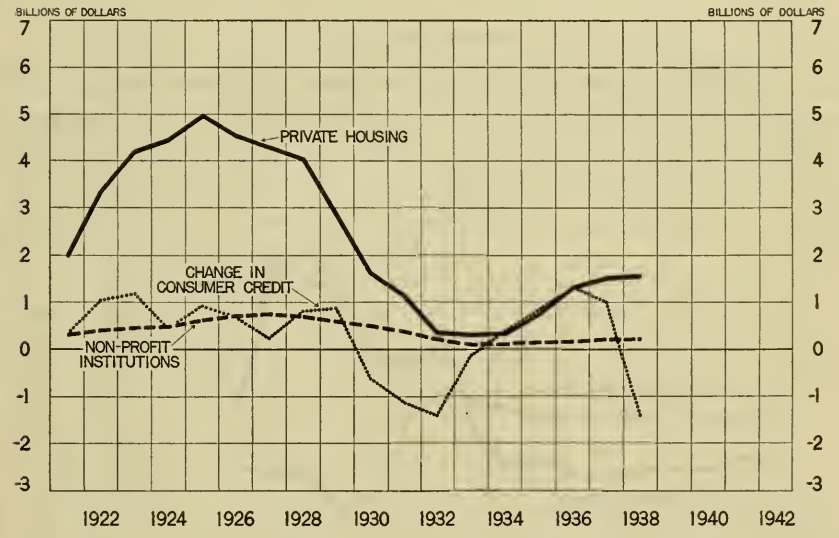
Mr. NEHEMKIS. Mr. Chairman, I desire to offer in evidence a chart entitled "Income-Producing Expenditures That Offset Saving," a further continuation of Dr. Currie's discussion.

The CHAIRMAN. The chart and table may be received.

(The chart referred to was marked "Exhibit No. 550" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 4011.)

EXHIBIT No. 550

INCOME-PRODUCING EXPENDITURES THAT OFFSET SAVING—CONTINUED




Dr. CURRIE. This chart shows the annual expenditures on private housing, construction by nonprofit institutions, churches, country clubs, universities, things like that, and the change from year to year in the outstanding volume of consumer credit.

Mr. HENDERSON. That is on an annual basis?

Dr. CURRIE. The change from year to year. We observe that the point that Dr. Hansen was stressing as he closed his testimony this morning is strikingly illustrated here. The most serious gap in these offsetting expenditures in 1937, as contrasted with the twenties, was in residential building. Recovery has been very modest to date.

[1] See revised figures subsequently submitted by Dr. Currie, which appear in appendix, p. 4122.

The recovery has been even less marked in the case of nonprofit institutional construction.

Mr. HENDERSON. Dr. Currie, all these charts are plotted on the same basis; so if you wanted to relate, as the chairman did, agricultural expenditures to private housing, you could superimpose the two charts.

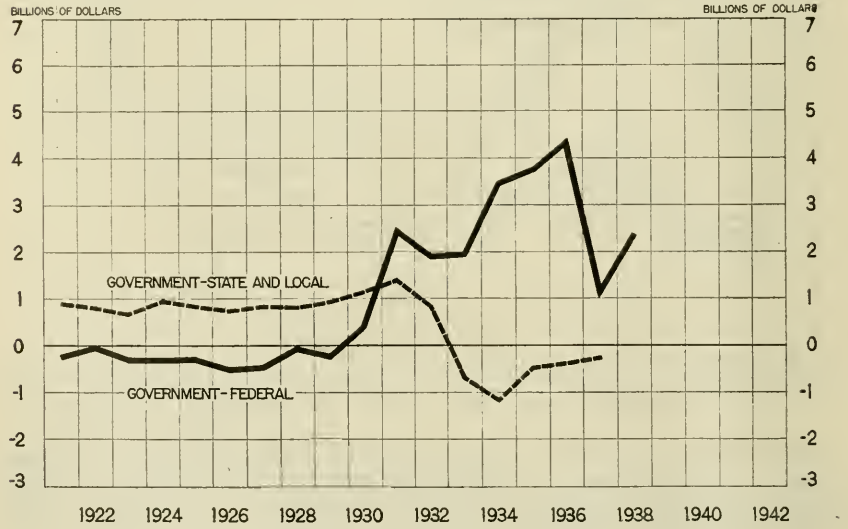
Dr. CURRIE. They are all on the same scale, these first five charts. There was a growth of nearly 1 billion in some years in the net outstanding volume of consumer credit throughout the twenties, building up to a figure of 8 billion dollars in 1929. The increase since '33 has been very rapid with 3½-billion expansion in the total volume of consumer credit from '33 to '37, inclusive. The increase of consumer credit outstanding in 1937 and the absolute volume outstanding at the end of the year were both larger than the comparable 1929 figures.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence a chart entitled "Income-Producing Expenditures That Offset Saving," continuing Dr. Currie's testimony.

(The chart referred to was marked "Exhibit No. 551" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 4011.)

EXHIBIT No. 551

INCOME-PRODUCING EXPENDITURES THAT OFFSET SAVING—CONTINUED




The CHAIRMAN. The exhibits may be received.

Dr. CURRIE. This chart represents an attempt to measure the net addition to the disposable cash income of the community attributable to both Federal and State and local public bodies. It represents, generally speaking, the excess of expenditures that go into income made by public bodies over tax collections that represent a deduction from disposable cash income.

The CHAIRMAN. Does this line representing Federal expenditure include all P. W. A. expenditures?

Dr. CURRIE. Yes, sir.

The CHAIRMAN. What allowance have you made for a contribution by local governing bodies by way of bonds which they have issued?

Dr. CURRIE. That comes in the dotted line "State and local."

The CHAIRMAN. So that the Federal line includes only the grants on the P. W. A.?

Dr. CURRIE. That is right, sir.

The CHAIRMAN. As far as P. W. A. is concerned?

Dr. CURRIE. That is right. It will be observed that throughout the twenties local bodies provided an annual offset to saving of around $1,000,000,000 a year. Since 1932, instead of providing an outlet for savings, they have actually added to the supply of savings. Incoming tax receipts have more than counterbalanced expenditures going into current income and there has been a net retirement of debt and net addition to cash balances on the part of local and State bodies, so that the position in the last few years in comparison with the twenties is exactly in reverse with reference to the Federal Government and the State and local bodies.

Mr. HENDERSON. That means that all during the twenties when the Federal Government was retiring its debt at a faster rate than it was issuing debt, it was also adding to savings, wasn't it?

Dr. CURRIE. That is right.

Mr. HINRICHS. If I read that chart correctly, it means that the net addition by all types of government in 1937 was almost precisely identical with that in 1929, is that correct, except that there had been a reversal; that whereas there was a very small decrease in the Federal debt in 1929, there was an almost identical decrease in State and local debt in 1937; whereas the State and local governments had contributed $1,000,000,000 of construction borrowing over what it may have been in 1929; that $1,000,000,000 was contributed in 1937 by Federal Government borrowing?

Mr. NEHEMKIS. Mr. Hinrichs, if I might call your attention, I have no objection—and I know the witness would be delighted to go into much detail; however, one whole session of these hearings will be devoted to an explanation and exposition of the very question you are raising.[1] May I request, therefore, Mr. Hinrichs, that you defer putting your question until that time, so that we may go into it in great detail?

Mr. HINRICHS. Pardon the interruption.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence a chart entitled "Mining and Manufacturing Expenditures for Plant and Equipment and Index of Industrial Production," together with table supporting that chart.

The CHAIRMAN. The chart and table may be admitted.

(The chart referred to was marked "Exhibit No. 552" and appears on p. 3530. The statistical data on which this chart is based are included in the appendix on p. 4012.)

### RELATION OF CAPITAL EXPENDITURES IN SELECTED INDUSTRIES TO OUTPUT IN THOSE INDUSTRIES

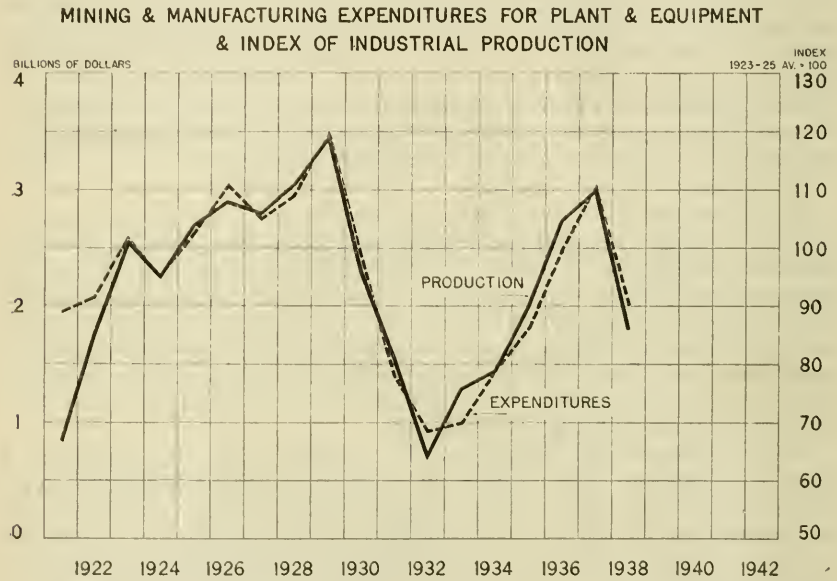
Dr. CURRIE. "Exhibits Nos. 552, 553, and 554" illustrate the relationship of capital expenditures in mining and manufacturing and

[1] Infra, p. 3546 et seq.

railroads and utilities to the output in those various fields. "Exhibit No. 552," which makes a comparison between the F. R. B. index of production and the total volume of plant and equipment expenditures in mining and manufacturing, suggests a remarkably close relationship in trends between capital expenditures and industrial production, so that plant and equipment expenditures bore the same relation to the volume of production in 1937 as they did in 1928, and indeed all through the period, but 1928 happens to be the year in which the absolute volume of expenditures was the same.

Mr. HENDERSON. It suggests also that every time production has turned down, the expenditures for mining and manufacturing have likewise turned down.

EXHIBIT No. 552




Dr. CURRIE. That is true, and there is an evidence of a slight lag of expenditures behind production in 1933 and 1934. Unfortunately these series, being on an annual basis, are not very suitable for developing leads and lags.

Mr. NEHEMKIS. I offer a chart entitled "Electric Power Expenditures for Plant and Equipment, and Indexes of Total Installed Capacity and Total Output," together with the accompanying table.

The CHAIRMAN. The chart and table will be received.

(The chart referred to was marked "Exhibit No. 553" and appears on p. 3531. The statistical data on which this chart is based are included in the appendix on p. 4012.)

Dr. CURRIE. In this chart the plant and equipment expenditures in electric power are related to indexes of total installed capacity as of January 1 every year, and total output in January every year, January being chosen as a month of customarily peak output, and also, because it is close to the end of the year, a date on which

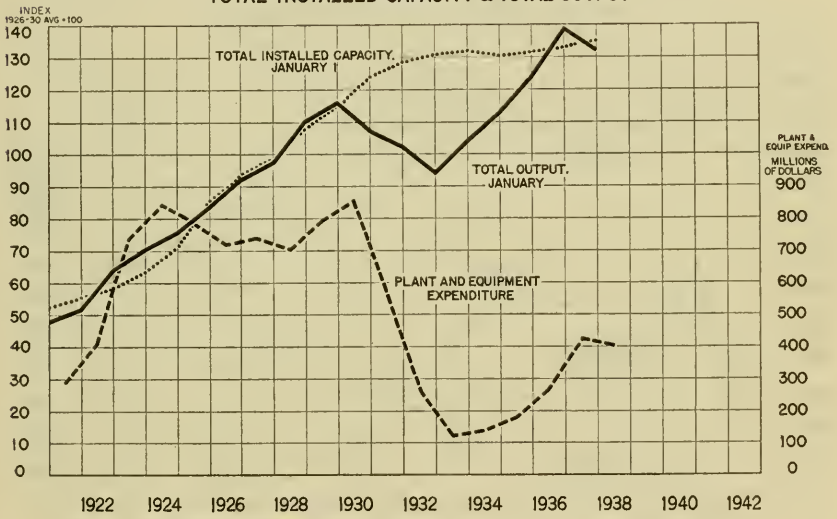
we can get installed capacity. It should be remembered that when the output line goes above the capacity line, that does not mean actual output in excess of capacity. That is just in relation to the base period, 1926 to 1930, which is 100.

It will be observed that in terms of that relationship of output to capacity on January 1, 1926 to 1930, when output exceeded capacity, you had a very high or rising volume of capital expenditures in electric power. When output fell short of capacity relative to that period, you had a drastic decline in expenditures for plant and equipment.

It also comes out very clearly on the chart how the total installed capacity continued to increase until 1932, whereas the peak output declined in the depression, and it was not until January of 1937 that output again exceeded capacity relative to the late twenties.

EXHIBIT No. 553

ELECTRIC POWER EXPENDITURES FOR PLANT & EQUIPMENT, & INDEXES OF TOTAL INSTALLED CAPACITY & TOTAL OUTPUT




It was in 1937, too, that we first began to get a fairly substantial volume of expenditures in electric power, though they were still some 300 million short of the level prevailing throughout the middle twenties.

Mr. NEHEMKIS. Mr. Chairman, I desire to offer into evidence at this time a chart entitled "Railroad Equipment Expenditures, Available Freight Cars, and Carloadings," together with the accompanying data.

The CHAIRMAN. They will be received.

(The chart referred to was marked "Exhibit No. 554" and appears on p. 3532. The statistical data on which this chart is based are included in the appendix on p. 4012.)

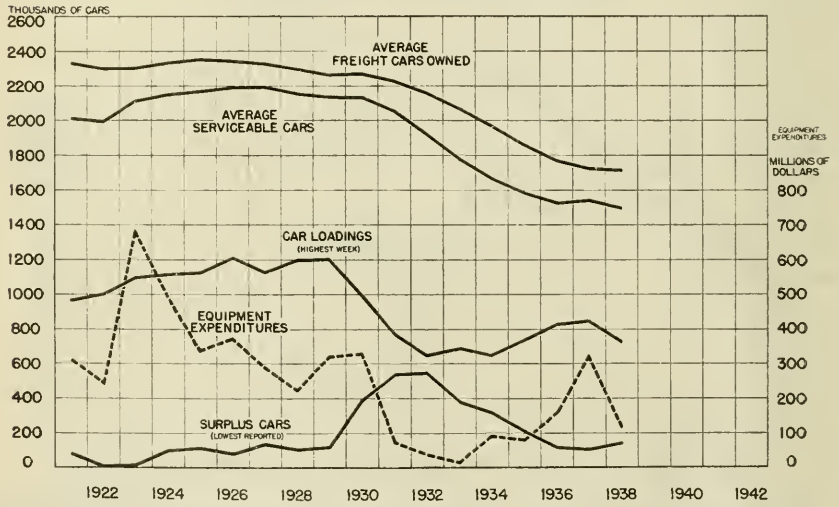
Dr. CURRIE. Reading from the top to the bottom of this chart, the first line being the average freight cars owned by all class 1

railroads; the second line being the average serviceable cars, the difference between the two lines being bad-order cars; the third line being the carloadings in the highest week, the annual peak carloadings; the fourth line being total equipment expenditures for rolling stock; the bottom line the lowest reported surplus cars prevailing at the time of the peak carloadings.

The shortage of equipment in the early twenties is illustrated by there being no surplus cars left at the time of the yearly peak. That was accompanied by a very large volume of expenditures for equipment, which brought about some increase in the total freight cars owned. Expenditures fell after that shortage definitely had been made up and remained between three and four hundred million throughout the latter years of the twenties. The very substantial decline in carloadings since 1929 has resulted in a large volume of surplus cars existing every year during the peak traffic period and a virtual cessa-

Exhibit No. 554

RAILROAD EQUIPMENT EXPENDITURES
AVAILABLE FREIGHT CARS AND CAR LOADINGS




tion of any expenditures on railway equipment, while retirements were taking place steadily, reducing the total stock of serviceable cars by some six to seven hundred thousand freight cars.

Mr. Henderson. Do I understand that the available serviceable cars owned by the railroads now are fewer than they were at any period during the twenties?

Dr. Currie. That's right; fewer by about 600,000 than in the twenties.

A further fact I would like to bring out is that with the very low peak of carloadings in 1938, which was very little above the very trough of the depression, we had hardly any more surplus cars left than we had in the late years of the twenties.

A final point I might make is that the volume of equipment expenditures alone on rolling stock in 1937 by the railroads approximated the level of the late twenties, 1928, and 1929.

Mr. NEHEMKIS. I offer in evidence a chart entitled "Composition of Income-Producing Expenditures That Offset Saving," together with the accompanying table.

The CHAIRMAN. The chart and table may be admitted.

(The chart referred to was marked "Exhibit No. 555" and appears on p. 3534. The statistical data on which this chart is based are included in the appendix on p. 4013.)

COMPOSITION OF TOTAL EXPENDITURES OFFSETTING SAVINGS 1921–1938

Dr. CURRIE. In "Exhibit No. 555" I have attempted to illustrate both in absolute terms and percentage terms the composition of the total of all these types of expenditures that offset savings, and hence by inference the total of saving in the community, in 1925 and 1937, years when the national income was fairly close, and 1929, the peak year both for national income and for capital expenditures.

I will direct your attention first to the center column, which contains the names of these various segments—"Change in inventories," "Change in consumer credit," "Foreign balance," "Housing and nonprofit institutions," "Other plant and equipment," "Railroad and utility," "Mining and manufacturing," that whole group making up "Plant and equipment," and finally, at the bottom, "Government," both Federal and local.

The CHAIRMAN. What do you classify as the income-producing expenditure of government?

Dr. CURRIE. The net addition to the disposable cash income of the community, the excess of expenditures that go into income over tax receipts that withdraw money.

The CHAIRMAN. So that you are not referring to the actual investment by government in an income-producing device or enterprise.

Dr. CURRIE. No. In that way my figures differ from those presented by Dr. Hansen this morning, where he just gave figures of public construction, regardless of whether it was financed by taxes or borrowing.

Contrasting 1937 with 1925, it is pretty obvious that the big changes were in inventories and housing and nonprofit construction. In the former year inventories amounted only to 9 percent of the total; in 1937, to 28 percent. In the former year, housing amounted to 33 percent of the total; in 1937, only to 11 percent.

Total plant and equipment expenditures were about the same percentage of the total in the 2 years, 47.5 in 1925 and 49.6 in 1937.

Mr. HENDERSON. On the basis that you have explained earlier, then, the difference between plant and equipment in 1929 and 1925 might account for the higher national income in those periods.

Dr. CURRIE. That's right. That is about the only substantial increase, I believe, as you go up the line. Inventories are slightly higher too. In terms of what Dr. Hansen was saying as he concluded his testimony, of the importance of the composition of the total, 1929 shows some worsening from 1925, housing being smaller, shrinking from 33 percent of the total to 19 percent, inventories being larger.

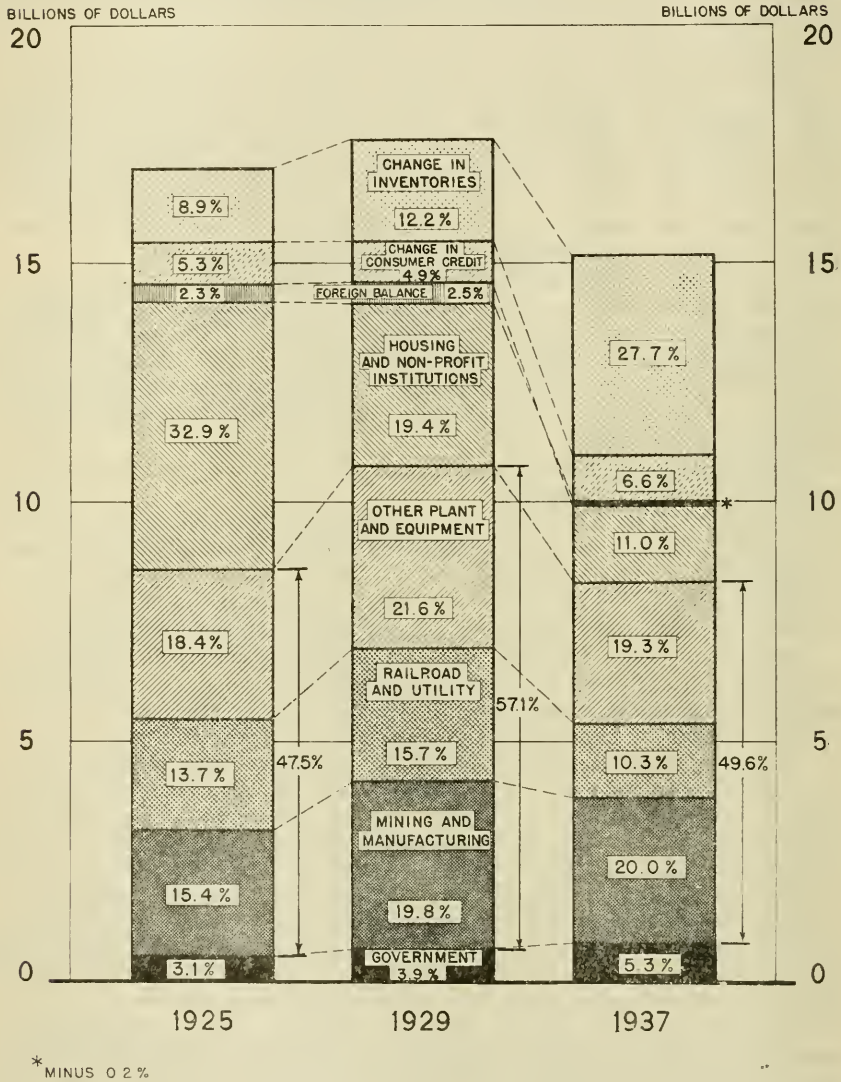
Mr. HENDERSON. And part of that is made up in the expansion of equipment and new plant expenditures.

Dr. CURRIE. That is right.

EXHIBIT No. 555

CHART V

COMPOSITION OF INCOME-PRODUCING EXPENDITURES THAT OFFSET SAVING




*MINUS 0.2%

The total share provided by plant and equipment expenditures in mining and manufacturing was as high in 1937 as in 1929—20 percent in both cases of the total.

Mr. Henderson. Is this an entirely new chart that hasn't been made available to the public before?

Dr. Currie. That's right; it is entirely new.

Mr. Nehemkis. Mr. Chairman, may I offer in evidence a chart entitled, "National Income and Total Income-Producing Expenditures That Offset Saving," together with supporting data?

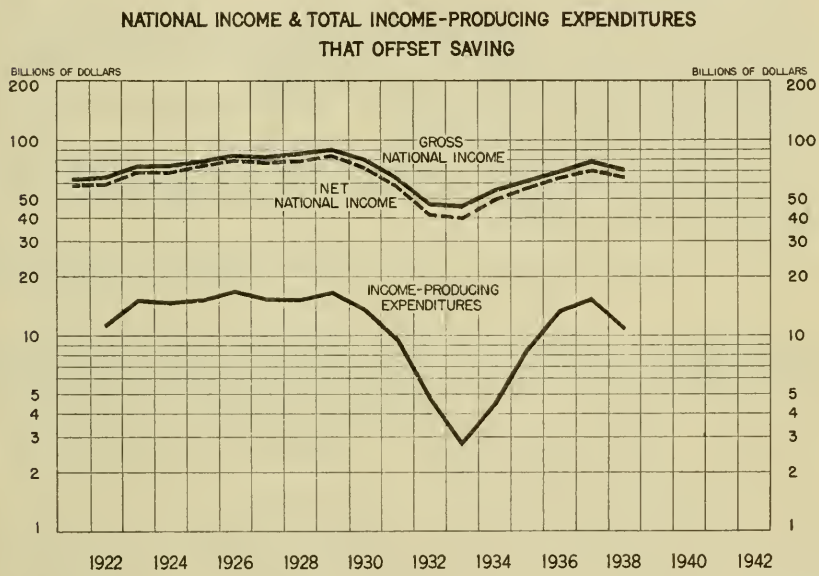
The Chairman. The chart and table may be received.

(The chart referred to was marked "Exhibit No. 556" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 4013.)

Representative Reece. Before he leaves the other chart, would you mind the explanation being repeated for the first item in those columns?

Mr. Nehemkis. Dr. Currie, have you the question put to you by Congressman Reece?

Exhibit No. 556




Dr. Currie. By the first item did you mean "Government?" I meant to comment on that.

It is rather surprising that owing to the very sharp increase in Federal tax collections in 1929 the offsets to saving provided by all Government bodies was very little higher—it was almost the same, as a matter of fact, in 1937 as it was in 1929 or 1925.

Representative Reece. But I am not yet going to get clear what that item includes.

Dr. Currie. That item includes, for the Federal Government, all types of expenditures except refinancing, minus all types of receipts that come out of current income, that decrease disposable cash income—income taxes and sales taxes and the like.

Mr. Henderson. It represents the amount which the Government put into the income stream in excess of what it withdrew.

Dr. CURRIE. That is right. It does not correspond to the ordinary cash-deficit figures, because there have been many adjustments made in these figures. For instance, we include the purchase of domestically mined gold and silver, even though that does not come into the Budget at all.

Representative REECE. I was interested in getting the difference, in view of the fact that the figures didn't appear to be in harmony with those Dr. Hansen gave this morning.

Dr. CURRIE. He was speaking of public construction; I am talking about the difference between taxes and expenditures.

The CHAIRMAN. From that chart, so long as we have interrupted you, Doctor, it is evident that for the year 1937 the contribution of private housing was more than twice as great as the contribution of Government, and the contribution of change in consumer credit was 6.6 percent against the Government percentage of 5.3 percent?

Dr. CURRIE. That is true.

The CHAIRMAN. So that that was greater. In other words, the contribution of the Government in the sense that you have defined it here was the smallest of all the contributions that were made to income-producing expenditures during the year.

Dr. CURRIE. Except foreign balance, which in that year was a negative quantity, minus 0.2 percent.

The CHAIRMAN. Oh, yes; the foreign balance in 1929 was 2.5 percent, in 1925 it was 2 percent, and a minus 0.2 percent for 1937.

Dr. CURRIE. That is right.

### RELATION OF INCOME-PRODUCING EXPENDITURES OFFSETTING SAVINGS TO THE NATIONAL INCOME

Dr. CURRIE. I turn now to the second part of the data requested of me, the relation of income-producing expenditures that offset saving to the national income. Since the figures presented to this point include gross capital expenditures on buildings, plant, and equipment, it is proper to relate them to figures of national income before deduction of depreciation allowances.

For our present purposes we may call this series the gross national income as distinguished from the customary national income, which is net. Also, for present purposes, I have adjusted the income-producing expenditures series by adding 60 percent of the aggregate volume of the current year to 40 percent of the preceding year.

Mr. HENDERSON. I am afraid I didn't get that explanation, Dr. Currie.

Dr. CURRIE. Instead of taking the absolute total of all income-producing expenditures that offset saving for a given year, I have taken 60 percent of that year plus 40 percent of the preceding year, so as to smooth the series, which is better, I think, for the current purposes for which I am going to use this chart.

Mr. NEHEMKIS. You might, Dr. Currie, before you continue, clearly differentiate, if you will, the difference between gross national income and net national income.

Dr. CURRIE. The difference, which is shown to be quite slight on this chart, actually amounts to around $8,000,000,000 in recent years, and is attributable to the fact that we have taken national income before deduction of depreciation for both business and residences,

so the gross national income includes expenditures for replacement goods as well as for new capital to offset depreciation, as well as for net expansion of capital.

There are several interesting things that I think are borne out by this chart. In the first place, there is an obvious tendency for the expenditures representing offsets to savings to increase more rapidly than income as you emerge from a bad depression. That is understandable because you tend to save more income as income increases. The proportion of income saved tends to increase with an increase in income.

There is, however, one exception, a very interesting exception, to that general rule; that is, the period 1923 to 1928 was a period broadly speaking in which you had a stable volume of these types of expenditures that offset saving, and hence by inference saving, associated with a rising trend of national income. In other words, from 1923 to 1928, apparently consumption was increasing relative to income.

One suggestion offered to account for that would be the influence of the stock-market speculation in tending to stimulate consumption. Not only did rising stocks decrease the inducement for individuals to save, but an enormous amount of savings must have been canalized through the medium of brokers' loans and cashing of paper profits back into consumption again, so that, I think, was a force in the late twenties tending to hold down saving relative to income, or increase consumption relative to income, and hence make it possible for a more or less stable volume of capital expenditures to support a rising national income.

Another point I should like to make in this chart is that by 1937 we were apparently saving as large a proportion of the gross national income as we did throughout the twenties. In fact, the percentages come out exactly the same, the average for 1923–'29 being 19.2 percent, the figure for 1937 being 19.2 percent.[1]

The CHAIRMAN. Will you show the spots on the chart which demonstrate the conclusions which you have just drawn?

Dr. CURRIE. Those spots, Senator, are for my next conclusion, and that is that if this relationship holds in the future as it has held in the past for relatively prosperous periods, in other words as we get up toward eighty and ninety billion dollars income, if we save as large a proportion of that national income as we did in the twenties, a national income gross of one hundred billion, or a net of ninety billion, would have to be associated with $19,000,000,000 of capital expenditures of the type that offset saving.

If, of course, we save a larger proportion of our income, you would have to have a correspondingly larger volume of saving offsetting expenditures. If we save a smaller part of our income, you will have a smaller volume of saving offsetting expenditures.

Mr. HENDERSON. As I understand it, you are making no suggestion on policy. What you are saying is that in the concept of $90,000,000,000 of income, on the basis of what the experience in saving has been, we would have to have something like $19,000,000,000 of these various income-producing expenditures which you have just been

[1] Revised percentages are 19.4 and 17.8. See revised figures subsequently submitted by Dr. Currie, appendix, p. 4122.

illustrating in your charts in order to make up the national income at that level.

Dr. CURRIE. That is right.

Mr. HENDERSON. And so the prospect would be that we have to be thinking, based on past experience, of a comparable expansion in investment or income-producing expenditures in the future, rather than less under the present terms.

Dr. CURRIE. That would be my inference.

Mr. NEHEMKIS. Dr. Currie, before you leave the stand do you wish me to offer in evidence certain statistical tables which support some of the statements you made a few moments ago?

Dr. CURRIE. Yes. And also the appendix containing the source of the figures I have used in making up the charts and tables.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence a table entitled "Supplementary table I–a, plant and equipment expenditures by type of business."

(The table referred to was marked "Exhibit No. 557" and is included in the appendix on p. 4014.)

Mr. NEHEMKIS. I likewise offer in evidence "Appendix on sources and methods to statement submitted to the Temporary National Economic Committee by Dr. Currie."

The CHAIRMAN. The material may be received.

(The appendix referred to was marked "Exhibit No. 558" and is included in the appendix on p. 4015.)

Mr. NEHEMKIS. Thank you very much, Dr. Currie.

Mr. Chairman, if it please the committee, I wish now to recall Dr. Alvin Hansen.

## TESTIMONY OF ALVIN HARVEY HANSEN, PROFESSOR OF POLITICAL ECONOMY, HARVARD UNIVERSITY, CAMBRIDGE, MASS.—Resumed

Mr. NEHEMKIS. Dr. Hansen, are you prepared to continue your testimony at the point you left off this morning and comment upon the testimony just given by Dr. Currie?

Dr. HANSEN. Mr. Chairman, members of the committee, I should like to remind you that the charts that Dr. Currie has presented relate to capital outlays which include not only expansion, but also capital outlays for replacement and renewals. If I may revert to the chart, because I wish to make a comment about it, that I presented this morning[1] and call attention to the fact that for business capital outlays, in the good years of the twenties a very much larger amount of capital outlays was for replacements and renewals than for plant and equipment expansion. In fact, the ratio is about 2 to 1.

### IMPORTANCE OF DEPRECIATION AND DEPLETION ALLOWANCES IN VOLUME OF FUNDS AVAILABLE FOR CAPITAL PURPOSES

Dr. HANSEN. A significant characteristic of the highly developed industrial system is the increasing importance of depreciation and depletion allowances as a source of funds for capital outlay on renewal and replacement of plant and equipment. When a society has accumulated

[1] See "Exhibit No. 544," supra, p. 3509.

a vast amount of capital goods, it is evident that the mere expenditure of depreciation allowances provides wide scope for continuous improvement of plant and equipment. The larger the amount of capital equipment, the larger will be the depreciation, depletion, and obsolescence allowances which are available each year for capital outlays. Frequently large portions of these allowances are available not merely for renewals and replacements, but even for new and additional equipment. The expenditures from depreciation and depletion allowances may often have no relation to any specific worn-out machines. Newly built plant and equipment will not need to be replaced for many years and sometimes even decades, yet the annual depreciation allowances on such equipment will be available year by year for expansion.

Obviously, a society with large depreciation and depletion allowances can modernize and improve its capital equipment in producing continuously new technics and even at times expanding its plants and equipment without tapping any new savings. On the other hand, there is an offset that, especially in periods of rising prices, it may well be that the accounting allowances do not adequately cover the true economic depreciation. At all events, highly developed units are prepared to make large capital outlays and to produce a vast amount of plant and equipment without going to the market for new funds at all. According to a study by Dr. Fabricant of the National Bureau of Economic Research, depreciation and depletion allowances amounted in 1929 to over $5,000,000,000, while from an estimate by Mr. George Eddy in the Review of Economic Statistics for May 1937, only $2,000,000,000 of new productive issues were raised by corporations in the capital markets.

Mr. HENDERSON. Does that mean two and a half times as much available from the depreciation account as was supplied through the capital markets?

Dr. HANSEN. Two and a half times as much available; yes, sir.

Mr. HENDERSON. In 1929?

Dr. HANSEN. In 1929. But a full-fledged recovery calls for something more than the mere expenditure of depreciation allowances. It requires large capital outlays on plant and equipment expansion, whether private or public. Unless there is expansion of productive equipment and new construction there will be no outlets for new savings, and if savings are not invested either by the saver himself or by a borrower on plant expansion and the like, they become hoards or idle funds. As hoards or idle funds they not only do society no good, but do positive harm. Hoarded savings cause unemployment in the capital-goods industries.

The CHAIRMAN. Is it necessary, Doctor, if I may interrupt you, to have an offset for any saving except the saving which is hoarded?

Dr. HANSEN. Yes; it is necessary to have an offset for all saving. Otherwise, you will have a decline in the national income owing to the fact that a part of the previously received income will not be spent in the commodity markets, and consequently you get a decline in the national income unless there is an offset to the entire volume of new saving.

The CHAIRMAN. But Dr. Currie told us that the total volume of savings is the difference between the value of goods and services pro-

duced in a given period and the value of goods and services consumed.

Dr. HANSEN. Yes: I noted that point. I should say when I speak of the difference between income and consumption, the part that is saved, I am referring to the income previously realised as against the consumption of the current period. If you define your savings as the difference of current product and current consumption, then of course it must always be true that savings and new investment are exactly equal, and in the current literature there has been much discussion about these definitions, but I think they are not important in understanding the problem, once one sees how the different individuals use the terms.

The CHAIRMAN. Savings which go into capital formation, to use the phrase that you adopted this morning, are a contribution to national income, aren't they?

Dr. HANSEN. That is right. Savings that go into capital formation are a contribution to the national income exactly as consumption expenditures are a contribution to the new income stream.

Mr. FRANK. Dr. Hansen, in effect your definition of hoarded savings is that portion of the savings that goes neither into consumption nor into investments.

Dr. HANSEN. Yes: that portion which was in fact not offset by capital outlays. The remaining savings were offset by capital outlays, and therefore those savings were not deflationary.

The CHAIRMAN. What, in your judgment, is the difference between the effect on the economic machine of that contribution which comes by way of a net saving which is invested in capital formation and a borrowing which is invested in capital formation?

Dr. HANSEN. The borrowing merely represents an absorption of a part of the savings.

The CHAIRMAN. Unless the borrowing comes from a source which has accumulated through saving, it does not constitute a contribution to national income, does it?

Dr. HANSEN. Well, the expenditure on capital outlays does make a contribution to national income, and those expenditures must come from savings or from new loanable funds supplied by the banks.

The CHAIRMAN. It makes a temporary contribution, but borrowings which exceed available savings make only annual use or contribution to national income, do they not?

Dr. HANSEN. Well, Senator, I should not say so. I think that such capital outlays which are in excess of savings from income, and let us say are financed by borrowing from banks, represent a net addition to the current income, and that amount of capital outlays would in all probability represent an expansion of the national income over and above the realized income of the previous period.

If your capital outlays merely absorb the savings out of previously realized income, you are holding your income stable. It is not advancing, but if you have capital outlays in excess of that amount, your income will be advancing. Now, there is one other way, of course, in which your income could advance, and that is by an expansion of consumption expenditures.

The CHAIRMAN. What I am trying to say, and probably having a great deal of difficulty in doing it, is that the saving or the con-

tribution to national income which is really beneficial to the national economy is that which comes from excess production over consumption.

Dr. HANSEN. Yes; that is, I think, Senator, a somewhat different story, though it certainly relates to what we are talking about. That is to say, your capital outlays on new plant and equipment, it is highly significant for the economy, and in a sense as much more significant for the economy than consumption expenditures, for the reason that it gives you a more productive plant out of which you can increase the national income.

The CHAIRMAN. Well, the whole people, considered as a unit, cannot invest in new productive enterprise what they have not already somehow produced.

Dr. HANSEN. Well, they are currently producing it, Senator; they are currently producing it and the capital outlays currently produced in real terms—you might, of course, have a change in the value of money or change in price level, but the capital outlays in real terms are beneficial to society, certainly, whether those funds were raised out of voluntary savings from income or out of an expansion, let us say, of bank credit.

Mr. HENDERSON. That might be true of consumer credit also, Dr. Hansen?

Dr. HANSEN. Yes; it might be true of consumer credit also.

Mr. HENDERSON. The point is that if you use bank credit for an expansion of producing equipment, it is likely to yield more real wealth.

The CHAIRMAN. The discussion is getting so interesting, Doctor, that we are violating our rules on all hands, and Mr. Ballinger wants to contribute to the violation, and I think I can't rule against him.

Mr. BALLINGER. Dr. Hansen, I understood you to say that in order to achieve full prosperity we have to have more expansion of existing plant equipment, more saving power in the industry. Now, I may be wrong on this; if I am you can correct me at once. I understand that in 1929 there was considerable idle plant capacity in American industry, and I understand that was true in 1928, and true in 1927. Now, why should we go on the theory that savings will help increase prosperity when we apparently haven't learned the trick of using to maximum the existing plant equipment that we have?

Dr. HANSEN. Yes; I think the excess plant capacity in the late twenties was not so terribly great, and I myself am not terribly alarmed about excess plant capacity. The problem, essential problem, that I am dealing with exists whether or not there is any excess plant capacity. The importance of savings finding an outlet in real investment. That is equally important, whether or not there is any plant capacity. However, the point to which you refer, I think, sir, I will take up before I am through; and perhaps we might postpone the question until that time, and if I don't adequately answer it you may wish to come back at me again; but I am dealing with just the point you are raising in a little different connection.

Mr. NEHEMKIS. Mr. Ballinger, on the 24th,[1] I believe, Dr. Hansen will devote an entire session to the very point that you have raised, and I am sure that you would prefer that he go into it in detail,

[1] See infra, p. 3837 et seq., for further testimony of Dr. Hansen.

which he will at that time, rather than in a spotty fashion at this time.

Dr. HANSEN. I am also referring to it in my testimony this afternoon.

Mr. BALLINGER. That is perfectly agreeable to me. I shall await it with interest, but I was going to say that perhaps another aspect of this problem might be finding some way to perhaps decrease saving and put more money into consumption goods.

Dr. HANSEN. I am dealing with just exactly that point. I would like to stress, Mr. Chairman, at this point, that capital outlays on plant expansion and equipment is extremely important in raising the productive capacity of society and thereby raising real income, but at the same time I want to stress the point that it is quite wrong to assume that you can't make any progress in increased productivity without a large volume of savings, because the depreciation allowances enable you to renew your plant and equipment and introduce new techniques and greatly improve your plant, and you can have in modern times a perfectly enormous increase in your productive capacity merely by renewing your plant and equipment, merely by expending your depreciation allowances and not tapping a cent of savings; you can have very great progress.

Mr. HENDERSON. In other words, by spending that $5,000,000,000 of depreciation account on the best technological developments there could be an increase in productivity without a single dollar of new savings being used?

Dr. HANSEN. That is right.

Mr. FRANK. And with the result that you would have the paradox of increased productivity without a demand for the supplies that increased productivity could supply?

Dr. HANSEN. That leads into the intricate question of relation of consumption to saving, and investment. Also on that point I am going to refer at the end of my paper; yes.

The CHAIRMAN. Now for a little while we will try to avoid interruption, Doctor.

Dr. HANSEN. Hoarded savings cause unemployment in the capital-goods industries, thereby reducing consumption expenditures, which in turn further reduces capital outlays, and so the national income falls. Conversely, to get full employment and a full national income it is necessary to make large capital outlays in plant expansion. These put to active use the flow of savings, give employment in the capital goods industries, and this employment in turn raises the level of consumption expenditures which again stimulates further capital outlays on plant expansion.

If we can get adequate capital outlays on plant expansion we shall easily reach full employment on a full-income level, but it is extremely important to keep firmly in mind the fact that we cannot maintain full employment unless there is continuously going on a sufficient volume of plant and equipment expansion over and above replacement and renewals to absorb the full flow of savings. Savings do us good or harm according as they find or do not find investment outlets in productive expansion of plant and equipment and durable goods, including residential building and public works.

If we are going to get a full recovery we must have outlays on capital goods expansion adequate to absorb all our savings, and when I say capital goods I use the term in a broad inclusive way to include the entire physical equipment, both private and public, which enables us to live according to the standards of a modern civilized community. Capital goods broadly conceived includes not only factories and railroads but also hotels and private residences and public works of all kinds.

To get prosperity and full employment we must expand this equipment, unless we are willing to settle down to a chronic stagnation, chronic unemployment. We must have capital goods expansion adequate to absorb our flow of savings. Through expansion equipment we can put our savings to active use creating employment and income. How are we going to do this, of course, is the question everyone is asking. For myself I do not think there is any one panacea. There is no single answer. There are those who think there is one perfectly simple answer. Some say the answer is purely and simply Government spending. I do not think so.

Some say on the other side that the answer is purely and simply to reduce to the minimum the role of Government in economic affairs. Also, I do not think this is the case.

Mr. NEHEMKIS. Dr. Hansen, would you please read a little slower?

### EFFECT OF GOVERNMENT ACTION ON THE VOLUME AND FLOW OF THE NATIONAL INCOME

Dr. HANSEN. I do not think there is any simple solution. I think we have to do a great many things. It is a complicated problem and we have to attack it from many angles. For one thing, I believe we should undertake a thoroughly exhaustive study of our complicated tax structure. With respect to one aspect of our current taxes, our social security taxes, modifications, in my judgment, should be made along the lines recently proposed by Secretary Morgenthau. Our social security taxes have, in recent years, abstracted vast sums largely from consumption and forced them into the savings stream at a time when there were inadequate investment outlets for our savings.

In 1937 the net withdrawals were about one billion and a quarter, including both old age and unemployment insurance. In 1938 nearly a half billion were paid out in unemployment benefits, but after taking account of this offset there was still a net withdrawal of around one billion.

The CHAIRMAN. Will you give me those figures again, please?

Dr. HANSEN. In 1937 the net withdrawals were about one and a quarter billion, including both old-age and unemployment insurance. In 1938 there was paid out in unemployment benefits a half billion, approximately, but after taking account of this offset there was still a net withdrawal of around one billion. These withdrawals bore heavily on consumption. Let me say, however, that I do strongly favor social security measures, and further I favor a contributory system in which contributions are made from employers and employees, but I do not think we should accumulate a large reservoir in the old-age account.

We should put it on a pay-as-you-go basis, with a small contingency reserve. To this end we should liberalize the early benefit payments along the lines recommended by the Advisory Council on Social Security and we should not permit the step-up in pay-roll taxes as of January 1940, in my judgment.

Moreover, we should supplement the contributory system by Federal contributions from general tax revenues. By these measures we can remove, it seems to me, the repressive effect of these taxes on consumption. There are other respects in which our current tax structure weighs heavily on construction. In 1938 we collected in Federal taxes nearly three and a half billion dollars, bearing primarily on consumption. This includes the social security taxes, including the State collections for unemployment insurance, or 50 percent of the total tax collections. Excluding social security taxes the figure is nearly $2,000,000,000 or 36 percent of tax collections. In 1929 only 30 percent of our tax collections came from sources bearing primarily on consumption.

Mr. HENDERSON. What do you include in those besides the social-security taxes?

Dr. HANSEN. Well, I have a list; it includes commodity taxes, manufacturers' excess taxes, customs duties, gasoline taxes, and all of that sort of thing; taxes weighing on consumption, customs and commodity taxes and excess taxes, which enter into the price of the commodity.

Mr. HENDERSON. Which are generally a withdrawal?

Dr. HANSEN. Withdrawal from consumption. In addition the trend of State and local taxation has been in the same direction, the States raised about $600,000,000 from general sales taxes, liquor and tobacco taxes. In 1938, let me say, the figures I gave you before on Federal taxes include the liquor and tobacco taxes, a very large part of it.

Now, I do not believe—these sources of revenue were of negligible importance in 1929 for State and local taxes. Now, I do not believe we can dispense altogether with consumption taxes, but it is, I think, generally recognized that our current tax structure is unduly repressive on consumption. The recent round table of the Fortune Magazine on taxation and recovery,[1] participated in by distinguished executives and leaders in other fields, was in substantial agreement on this point. They recommend as an offset to a reduction in consumption taxes an increase in the income tax to be raised from the so-called middle-income brackets ranging up to $50,000 per year, by lowering exemptions, and by raising present rates in that so-called middle area.

By reducing repressive taxes on consumption we could give encouragement to expansion, and thus make a contribution to the solution of our problem. There is, moreover, widespread belief among many competent leaders in the business community and elsewhere that the reform of certain features in our corporate tax structure is desirable in order to remove repressive effects on expansion. This opinion justifies, it seems to me, a candid and exhaustive study of our entire tax structure—Federal, State, and local.

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[1] Fortune, vol. 19, pp. 67–68, May 1939.

Most important of all, it seems to me, the Fortune Round Table to which I have just referred recommends the establishment of a national tax commission to formulate a long-term tax policy.

There has been much discussion about the importance of increasing business confidence, or reducing to the utmost possible extent the risk and uncertainty that confronts the business community. That, I state, is the essence of this particular problem—risk and uncertainty. This is of great importance. We are living in dangerous times. The modern world is loaded with a high risk factor. We are living in a very tense international world. We are living in a period of rapid institutional change in our internal economy.

In our complicated modern world we are confronted with intricate and seemingly insoluble problems of human organization. We are in process of developing new institutions controlling the relations of employers and employees. The Social Security Act, the regulations of the capital market, of public utility, and the like confront business—American business—executives with new and difficult problems. For the most part these changes in our institutional arrangements are, in my judgment, in some form or other here to stay and business cannot go forward without recognizing this fact.

Many of the reforms recently introduced were long overdue. Where mistakes have been made, they must be corrected as rapidly as possible. We must consolidate and improve these institutions in a statesmanlike manner. This, I think, we can all take for granted. Business has learned to live with changing situations in the past; flexibility and versatility to meet new conditions in a rapidly changing world are essential for survival of a free enterprise economy and for political democracy.

The highly dynamic nineteenth-century world was also a world of high risks. Technical progress itself implies the risk of obsolescence and depreciation of capital values. Nevertheless, confronted with alluring investment projects springing from rapidly expanding population, the occupation of new territory, the exploitation of new resources, and the growth of new industries, capital outlays were eagerly made, despite the high risk factors. A rapidly expanding economy can afford to undertake and willingly does undertake risk.

Yet it cannot be denied that even under the favorable conditions of rapid expansion heavy losses alongside rich gains were sustained. Yet, despite these losses, hope always ran high with respect to new ventures. Our current less rapidly expanding economy is perhaps in a stronger position to safeguard itself from the risks of technological innovations, but it is compelled to face larger risks from institutional change and from social and international upheaval.

It does not enjoy the buoyancy and optimism under which the rapidly expanding economy of the pre-war century was capable of riding rough shod over risk.

I think we must face the fact that we live today in a peculiarly risky world, and this fact does have a repressive effect. It makes the problem of adequate investment outlets more difficult.

The great fields for private investment outlets are, of course, manufacturing and mining, utilities, railroads, and residential constructions.

Mr. Nehemkis. Mr. Hansen, will you make it a bit slower, if you will, please?

Dr. Hansen. In the good years of the twenties, about $3,000,000,000, Dr. Currie has shown, were annually expended on manufacturing, mining, plant, and equipment. This was the gross outlay. It included not only replacement of worn out and obsolete equipment and plant, but also expansion of plant and equipment, adding greatly to the productive capacity. According to Dr. Currie's estimate, $3,000,000,000 were expended—in other words, an equal amount—in mining and manufacturing plant and equipment in 1937. With a rising national income, capital outlays of something over this amount could reasonably be expected. In 1926 to 1929 the volume of gross capital outlays on utilities, including electric power, telephone, transit and other utilities, amounted to 1.7 billions. In 1937 they amounted to slightly over $1,000,000,000.

Here is certainly an important field for expansion. With respect to the railroads, the yearly volume of capital expenditures in the late twenties amounted to about $800,000,000; in 1937 the expenditures were about $500,000,000. The retirement of equipment in excess of additions in the past 8 years has created, as Dr. Currie's figures show, a considerable backlog in the event that railroad traffic should increase. Residential building, everything considered, would appear to offer the most hopeful field. The current low level of construction is partly due, as I have indicated, to the slower growth of population, but is also due to the current low level of the national income and of employment. We are here dealing with a vicious circle. How far can residential building be pushed to a high level in advance of a rise of the national income? The backlog of potential demand for housing which the depression has created will not materialize into a strong, active demand until people are again employed. Families will continue to double up, to live in a restricted and congested manner as long as unemployment confronts them, yet it is necessary to expand the volume of residential construction in order to overcome unemployment. It is for this reason that active measures are urgently needed. For one thing, it seems to me that the time has come when we could well reduce the guaranteed rate of interest allowed under the Federal Housing Administration regulations; the 5 percent guaranteed rate with the current surplus of funds seeking investment appears abnormally high, and is certainly a deterrent to building which might otherwise be made.

### NEED FOR INCREASING THE VOLUME OF GOVERNMENT INVESTMENT

Dr. Hansen. Considering the current investment outlet deficiencies compared with the decade of the twenties to which I have referred, it appears very doubtful that we can solve our problem of full employment by relying exclusively on private investment. Private investment, it seems to me, will have to be supplemented and, indeed, stimulated by public investment on a considerable scale. Public investment could furnish an outlet for a part of our flow of savings, and thus put them to active use, raising income and employment above the current chronic stagnation level.

The Chairman. What do you mean by public investment?

Dr. HANSEN. By public investment, I mean not only investment in self liquidating public projects, such as Boulder Dam, but also investment in roads and schools. I use the term in a broad way of capital outlays on durable improvements and projects.

Let me remind you again that even in the decade of the twenties public investment by State and local bodies in roads, schools, and other improvements absorbed $1,000,000,000 of savings per year. The States borrowed that much to make these improvements per year—State and local bodies. In the current decade local capital outlays declined so that State and local borrowings ceased. Local construction was maintained by Federal aid, amounting to $5,600,000,000 from 1933 to 1938. Thus a part of the recent rise in Federal debt merely takes the place of the former annual increase in State and local debt. Public investment, financed in part from borrowing, is not a new development springing from the great depression. It already played an important role in our economy in the decade of the twenties.

Some public investments are self liquidating in character. These offer no difficulty with respect to financing, and about these there can be, I think, no serious ground for controversy. Yet, because of an obsolete system of public accounting, we have dumped even these expenditures into our ordinary operating budget and mistakenly counted ourselves poorer by reason of the public debt incurred to finance these self liquidating projects.

About this matter of appropriate accounting I shall speak later.

Mr. NEHEMKIS. It is also your understanding, Dr. Hansen, that at a subsequent time in this presentation several items to which you have referred will be dealt with extensively. Is that correct?

Dr. HANSEN. Yes, sir; I am only illustrating certain points.

I only wish now to stress the point, in view of our current difficulties in finding adequate plant expansion outlets, we should, I think, explore to the limit all worthwhile self liquidating public projects, and undertake such capital outlays as rapidly as feasible. I understand that plans have been developed by the Bureau of Public Roads for revenue yielding types of public investment, such as toll roads, tunnels, bridges, municipal express highways and boulevards through congested areas aggregating several billions of dollars. Insofar as these can be made self liquidating, though financed by borrowing, they would place no burden upon the Public Treasury, and they would serve to put to active use a considerable part of the flow of savings It has also been suggested that rural rehabilitation projects and rural electrification projects can be put on a self liquidating basis. A railroad equipment authority financed outside of the regular budget, with power to purchase new railroad rolling stock which could be leased to the railroads as and when needed, might also help our problem. This might break the railroad's financial log jam and open the way for an expansion of railway capital expenditures.

There is danger, however, that we stress too much the merit of self liquidating public projects and loans. There are many potentialities for public investment in areas that are of the greatest social and economic significance, but which are not self liquidating. They may, nevertheless, be extremely necessary and useful and even highly productive in an indirect manner. Expenditures on the conserva-

tion and development of energy and natural resources may indirectly raise the national income by very much more than the annual amortization and interest charges incurred. Insofar as this is the case, such public investments are in fact profitable in a financial sense, even though they are not strictly self liquidating.

Public investment in the conservation and increased efficiency of our human resources can, if wisely expended, be equally productive. Outlays for hospitalization, public health, pollution abatement, sewerage projects, public low-cost housing may be no less productive in an indirect sense than outlays on national resources. The National Resources Committee and other branches of the Government have gone exhaustively into all these matters. It is not my purpose to go into any detail, and, indeed, for this I am not competent. I only wish to illustrate my general thesis.

We cannot afford to engage in irresponsible public spending. On the other side, we cannot afford to be niggardly with respect to public investment projects which are either directly or indirectly productive, and which serve to raise the standard of living and thereby contribute to private business expansion, and especially is this the case when we have huge unused and idle resources.

The question is always raised, where is the money coming from, and will we not soon go bankrupt as a government if we borrow for public investment projects. As far as self liquidating public works are concerned, there can be no question, I should suppose, that borrowing is a perfectly legitimate and financially sound procedure.

The CHAIRMAN. What is a self liquidating project?

Dr. HANSEN. A project that, over its lifetime, or within its lifetime, will earn money income that will cover the interest charges and the initial loan. Boulder Dam, as I understand it, it is said, will easily return its full initial outlay plus interest charges within 50 years.

The CHAIRMAN. Unless we reduce the rate of return, and the demand, of course, is being made.

Your answer illustrates the point I had in mind, the fund which liquidates such a public project must be derived from some source.

Dr. HANSEN. The source is the income of this self liquidating project.

The CHAIRMAN. No; the source goes back of that. How is the income to be produced? It must necessarily come from private sources eventually.

Mr. NEHEMKIS. Tolls and revenues.

Dr. HANSEN. It is simply part of the outlay of the general body of citizens from their income on the services of this particular project. That is identical to the income derived by private business, which is also deducted from the income of the community and paid for the services in question.

The CHAIRMAN. Then before there is any possibility of the self-liquidation of such a project, there must first be the means of developing the income of the citizens who are to pay the rates to the Government on the project.

Dr. HANSEN. Yes; and, Senator, these expenditures themselves serve to create that income out of which——

The CHAIRMAN (interposing). That is exactly the point which it will be interesting to develop.

Mr. Nehemkis. That is to say, Dr. Hansen, you have a concomitant situation. You have high purchasing power. One way of bringing that about is through these public projects, and at the same time, as a result of that activity you make it possible for the project itself to operate on a self-liquidating basis. That is correct.

Dr. Hansen. Yes.

The Chairman. Let me give you an example before you finish the answer to the question of Mr. Nehemkis. You have referred to Boulder Dam. The principal source of revenue to liquidate the cost of that project comes from the sale of electric power and also, I think, of water. The principal market for the power is the Power District of Los Angeles and the fund from which the repayments to the Government must be made is raised by the rates which the citizens of Los Angeles and the surrounding area pay to the company which distributes the electric power. Now, if those persons are not employed, they can't produce the income. If those persons or any large majority of them are either on relief, State relief or Federal relief, or on the W. P. A., they are not earning the income which would make it possible for them to contribute toward the self liquidation. Does it not seem, therefore—you are nodding in agreement with what I say.

Dr. Hansen. Yes; I am.

The Chairman. Does it not seem, therefore, that the first step is to provide employment before you can develop income for self-liquidating projects?

Dr. Hansen. This is a part of that process.

The Chairman. I would like to see you tie the two together.

Dr. Hansen. I have been trying to explain all through that income springs currently out of current consumption expenditures spent out of previously realized income and current capital outlays, and these capital outlays made on projects of this sort are income creating currently. Capital outlays on new plant and equipment are income-creating not only in this sense of which I am now speaking, namely in creating a part of the current flow of income; they are also income creating in another sense—and I think we need to distinguish—in the respect that expansion of plant and equipment increases the productive power with which we can make more goods. But whether that is the case or not, currently flow of income springs from these capital outlays, out of which individuals make further expenditures in the next period on consumption goods or on capital outlays. So that currently your income is all the time created out of the expenditures from previously realized income for consumption goods and for capital outlays, and a capital project is income creating I should say in two senses, first in the sense that I am speaking of it, and second, in the sense that it raises the productive power of society to increase the volume of real goods created.

The Chairman. But in an economic society in which there are between 10 and 11 million persons unemployed and between 2 and 3 million people drawing security wages from the Government, how is it possible that by the deficit spending on plant and equipment by the Government which according to the chart just presented by Dr. Currie constitutes less than 6 percent of the total income-producing expenditure—how is it possible, I say, under those circumstances to

imagine that merely added expenditures by the public for the construction of new plant will produce the salary or wage income to the unemployed of a sufficient amount to start the wheels going again and even to liquidate these projects?

Dr. HANSEN. That, Senator, all depends on the volume, as to whether it is sufficient or not, but it operates precisely in the same manner as private outlays on plant and equipment, and in the event that the public projects are also directly productive, not only does it increase the flow of the income at the moment but it also increases the productive power just as the expansion of private plant and equipment does.

The CHAIRMAN. When we find a column here, as in "Exhibit No. 555" [1] presented by Dr. Currie, in which 20 percent of the income-producing expenditures have been contributed by mining and manufacturing, 10.3 percent by railroad and utility operation, 19.3 by other private plant and equipment—I have interpolated the word "private" because I understood that to be the gist of the term; 11 percent by housing and nonprofit institutions, 6.6 percent by changes in consumer credit, and 27.7 percent by changes in inventories, how is it possible to expect that self-liquidating public enterprises which must necessarily go into this little segment at the bottom of only 5.3 percent will produce the wages to the masses of the people which must lie at the bottom of the new structure of prosperity?

Dr. HANSEN. I think I see the point to your question now, Senator. It so happens that in this year 1937 the large public works expenditures that were made by the Federal Government was to a very considerable extent offset, its expansionist influence was to considerable extent offset in that year by the social security taxes. That is one important offset, so that in that year the net income creating expenditures of government was considerably smaller than in the previous year. It is for that reason it seems to me that we have to take cognizance in connection with these matters also of our tax structure and our social security taxes. We may offset the expansionist advantage of public-work construction by other policies which deduct just that much from the income-creating factors, and that particular year was a year in which because of all of these matters the net income-creating expenditure of government was very small. In other years it was very much bigger.

Mr. FRANK. Doctor, you might turn to page 13 of Mr. Currie's pamphlet, the table there and the chart [2] show the differences between income-producing expenditures that offset savings for the 2 years. It is a very significant figure that bears out what you have just been saying.

Dr. LUBIN. Mr. Hansen, may I clarify a situation, at least in my own mind. In order to get clear, may I give an illustration to see if it is what you mean. I take it the Federal Government should adopt a program similar to that recommended by the Bureau of Public Roads and should spend, say, $2,000,000,000 on roads over a period of a year or two, if such a thing were possible, what would happen would be that in Bethlehem, Pa., there would be created a demand for cement, that in Pittsburgh there would be created a demand for steel,

[1] See supra, p. 3534.
[2] See "Exhibit No. 551," supra, p. 3528.

in Cleveland there would be created a demand for machinery; that the people who got those jobs would spend money and among the things they spent their money on would be movies. Part of the money they spent on movies would go to Los Angeles, thereby increasing the income of people in Los Angeles, which would thereby permit them to buy more houses, buy more of the power from Boulder Dam and by buying more houses create demands elsewhere.

If that expenditure should create a sufficient demand for more private investment, the time would come when you wouldn't have to spend these billions on roads and other Government projects. If on the other hand it did not create a sufficient private expenditure, you feel in order to make use of these idle savings, the Federal Government would have to continue spending.

Dr. HANSEN. Yes; that is it.

The CHAIRMAN. I understand that theory. It doesn't seem to me to answer the question which I have propounded. Nor does your own answer, Dr. Hansen. Whatever may be the facts regarding the singular characteristics of expenditures in 1937, "Exhibit No. 555"[1] shows that Government expenditures of the same type in 1929 were 3.9, and in 1925 3.1, and I think it is commonly understood that at no time during the last 6 years has the Federal Government expended for all purposes more than ten or eleven billion dollars at the outside in a single year.

Mr. NEHEMKIS. Dr. Hansen, before you attempt to answer: Mr. Chairman, may it please the committee, if we explore this problem further I respectfully request that I be permitted to recall the previous witness, Dr. Currie, and ask him the question which involves testimony which he gave.

The CHAIRMAN. That would be perfectly all right. But let me finish the statement I was about to make. It seems to me that all of the statistics which are available to us indicate that Government expenditure, both Federal and State and local, is just a drop in the bucket as compared with the expenditure which is necessary if you are going to start the machine again at the rate at which it was running before the crash.

When the Government contribution to income-producing expenditures is only 5.3 percent of the total,[2] it means just one thing, to my mind, and that is that 94.7 percent comes from some other source and since 94.7 percent is a much larger figure than 5.3 percent, should we not devote all of our attention to expanding those sources of income-producing expenditures which contribute to the 94 percentage of the total rather than devote ourselves to the expansion of public expenditures.

Dr. HANSEN. Let me put it in these terms. I think the essential question is: How are you going to get capital outlays equal to the flow of new savings? Let me remind you that this chart[2] refers not only to the expansion of plant and equipment from all sources, including residential construction and public construction, but also the replacements and renewals. Now our all-important problem is to find adequate capital expenditures offsetting the flow of new savings. That magnitude in the 1920's was around 9 billions a

[1] See supra, p. 3534.
[2] Ibid.

year, according to the deductions one may make from Dr. Kuznets' study. In that period public construction amounted to 2.6 billion dollars, which already in the twenties was a very large part of the total capital outlays offsetting savings.

Dr. Currie here has taken into consideration all other public policies bearing on this situation, taxes and offsets of taxes, therefore, to these expenditures, and that is the reason why I say that it is important to combine with your program of expenditure a consideration of your tax program. It is quite possible that one or two billions of dollars of public expenditures absorbing a flow of saving may make a very much larger effect on your national income, because as I tried to explain this morning, these expenditures, whether private or public, on capital outlays are what we may call high-powered money. They raise the income by more than the amount of expenditures and I think that relatively small amounts, both of private and public investment, may have a very considerable influence on the rise in the national income.

### CONTRIBUTION OF FEDERAL GOVERNMENT TO INCOME-PRODUCING EXPENDITURE

Mr. Frank. Dr. Hansen, may I call your attention and the Senator's to a fact that is obscured somewhat by the chart to which you have been referring. Dr. Currie has just called my attention, and I direct your attention, to the table and chart [1] on page 13, of the memo introduced today, and it will appear from that, Senator, that the government contribution to the income-producing expenditures for the year 1936 was 34 percent of the total. It drops in the year 1937, which is in the chart before you,[2] to 5.3 percent of the total.

I should correct that. Dr. Currie tells me it is 30 percent. I don't want to develop the point now. I think we should recall Dr. Currie and let him explain that, but the figure for '37 taken alone is a deceptive figure. It was small in that year and it was very high in the preceding year.

Dr. Hansen. That is what I said.

The Chairman. That table on page 13 is merely a comparison of Federal Government expenditure and State and local Government expenditure.

Mr. Frank. No, Senator; if you will look at the chart that you were referring to,[3] you took as significant the black line at the bottom which shows Government expenditures as 5.3 percent of the total income-producing expenditures that offset savings. Now if you will go back to this table [4] and look at the years '36 and '37, you will see that for the year '36 the total amount of the Government income-producing expenditures that offset savings, was 4 billion; whereas for the succeeding year of 1937, which is what is shown in the chart that you were previously referring to, was less than 1 billion, or 5.3 percent of the total of income-producing expenditures that offset savings in 1937. It was 30 percent of the income-producing expenditures that offset savings in the year 1936.

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[1] See "Exhibit No. 551," supra, p. 3528.
[2] See "Exhibit No. 555," supra, p. 3534.
[3] Ibid.
[4] See statistical data for "Exhibit No. 551," appendix, p. 4011.

The CHAIRMAN. No; I don't think you are reading the chart correctly there, Mr. Frank. Dr. Currie will agree with me, I am sure, when I point out to you that his figure of 5.3 percent on "Exhibit No. 555" does not represent the total contribution as is represented in "Exhibit No. 551". It represents the difference between the total expenditure and the tax returns of the Government.

Mr. FRANK. This is the same thing on "Exhibit No. 551."

Dr. CURRIE. That happened to be the percentage of the total of 1937. If I worked out the percentage composition of the total in 1936 the Government figure would have mounted nearly to 30 percent of the total. There is a very drastic decline in the offset of saving provided by the Federal Government from 1936 to 1937, as indicated in "Exhibit No. 551."

The CHAIRMAN. Well, very good then; let me ask you if it isn't true that the national income for 1937 with a smaller Government percentage was not greater than the national income of 1936 with a larger Government expenditure.

Dr. CURRIE. With a larger Government expenditure?

The CHAIRMAN. The answer is yes, isn't it?

Dr. CURRIE. The answer is "Yes."

The CHAIRMAN. That is just what I was driving at.

Dr. HANSEN. It was also in that year that we got a recession and I think that recession of '37 was to a very large extent due to just that decline in the net income creating expenditures of the Government.

The CHAIRMAN. Just a moment, please.

Mr. FRANK. We are planning to have a 3-day session on this subject.

The CHAIRMAN. Well, I am going to bring out an interesting statement now, which probably will need a little elaboration. Perhaps we shall need more than 3 days to explain this. I am going to read Dr. Currie's statement:[1]

> Public expenditures that add to disposable cash income more than tax receipts decrease disposable cash income, constitute an offset for an equivalent amount of current saving.

Now, accepting that as true, which I do, my question to Dr. Currie and to Dr. Hansen is, would not the same results be obtained by reducing the tax receipts as by increasing the public expenditure?

Dr. HANSEN. Yes.

The CHAIRMAN. The answer is yes?

Dr. CURRIE. The answer is yes.

The CHAIRMAN. And which would be the better policy for the Government to pursue, in your opinion?

Dr. HANSEN. That I am also going into more fully in the hearing subsequently. Now, if I may continue my testimony? My last statement was so far as self liquidating public works are concerned there can be no question, I should suppose, that borrowing is a perfectly legitimate and financially sound procedure. And under appropriate accounting practice, such investment financed by borrowing does not involve, properly speaking, an unbalanced Budget.

Intelligent debate begins with the question of borrowing for non-self liquidating projects. It is certainly true that the volume of such borrowing ought to be scrutinized in terms of its relation to taxable

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[1] Supra, p. 3523.

income and taxable capacity, but we need here also to look very carefully into what a balanced budget really means. I think it is clear that the ordinary run of governmental expenditures, the operating expenditures, which in modern times must include social service relief and welfare expenditures, should be balanced by tax receipts over an entire business cycle.

But when public investments are made in long term durable projects, it falls well within the limits of a wisely conceived financial plan to borrow for such capital expenditures if provision is made for amortization and interest charges within the lifetime of such durable projects. When an individual builds a house and borrows the funds to defray part of the cost, his personal budget cannot be said to be out of balance if his income is adequate to cover interest and amortization charges on the debt incurred.

Indeed, the borrowing and amortization plan is nothing more or less than a means whereby he may pay for the services of the house, so to speak, on an installment basis. A similar procedure has always been regarded as legitimate and appropriate for State and local bodies. Peculiarly under the conditions of a more slowly expanding economy there are sound reasons for the Federal Government embarking on a longer volume of public investments, on the basis of a borrowing and amortization plan. It is true that if the Federal Government financed all such improvements from such tax receipts the community would escape the interest burden, but it is not clear to me that the payment of interest is not quite as legitimate a charge for public investment services as it is in the field of private enterprise.

And insofar as the borrowing, interest and amortization mechanism may facilitate the employment of resources that would otherwise be idle and make possible the construction of community capital projects, the benefits of which would otherwise be unavailable, the interest charge is all the more legitimate. If tax revenues are provided amply to cover amortization and interest charges, the budget is in fact balanced. The whole project will be paid for out of taxes within the amortization period, but this is leading into the question of an operating versus an investment budget, and about this I shall speak later.

If it is deemed desirable, a part of the public investment could quite well be paid from taxation, provided the taxes are so levied as to fall on savings and not on consumption—in that case there would not be an offsetting deduction. In this connection it is of interest to note recent development in England.

### RATIO OF CONSUMPTION TO INCOME INCREASES AS AN ECONOMY MATURES

Dr. HANSEN. It appears that savings are being siphoned into consumption in very considerable volume in England through the tax structure and through the expenditures on social services. Estimates of national income and savings in England indicate that the proportion of income which was saved in the post-war decade and in recent years is very much smaller than before the war. Indeed, not much more than half as much.

The report of the Royal Committee on National Debt and Taxation found that savings had declined by some 150 to 200 million

pounds a year. Prof. A. C. Pigou and Colin Clark, in the pamphlet on the economic position of Great Britain, published in 1936, reached the conclusion that saving before the war amounted in England to 12 or 13 percent of the national income, while by 1924 this proportion had fallen to 8 percent, and by 1935 to 7 percent.

Colin Clark, in his recent study on national income and outlay, arrives at similar results, based on estimates of net investment. In 1907 net investment was 12.2 percent of national income, 8.1 percent in 1924, and 7.3 percent in 1937.

According to the report on economic conditions issued by the Royal Economic Society, new capital issues declined from £308,000,000 in 1928–29 to £194,000,000 per annum in 1936–37.

And in this connection we must remember that 1928 and 1929 was not a high point of prosperity for England, and yet the new capital issues in those 2 years were very much higher than the average capital issues in the recent high prosperity of 1936–37.

There was thus a marked decline in the new issues from the late twenties to the recent period of full recovery in 1936 and 1937.

These estimates disclose a remarkable shift in England in the ratio of savings to income. England is saving less than formerly. Stated otherwise, England has become a high consumption economy, and on that basis, that and other matters which I wish I had time to go into, England has staged a full recovery in recent years.

I may refer to one other matter which I think is extremely important in her recovery, namely the fact that she was able in her recovery years to purchase from all the world extremely cheap food and raw materials, and on the basis of this subsidy, so to speak, from the rest of the world, she was able to divert purchasing power into housing construction and so on, and that is an important basis for the British recovery, besides this one that I am here referring to.

Mr. Henderson. I don't want to slur over that, Dr. Hansen. I gather that what you are saying is that in addition to a considerably reduced level of saving, England was buying her cost of living items more cheaply and therefore had an amount to be diverted into housing out of current consumption.

Dr. Hansen. Yes.

In large measure, by reason of this shift to a high consumption economy and a lower savings economy, England has adjusted herself more successfully than we to the conditions of a less rapidly expanding society, a society which requires a smaller flow of savings than that required in the nineteenth century. So long as large savings could find active use in plant expansion, whether in England or in investments abroad, in her empire or elsewhere, a high ratio of savings to income was desirable, but in recent years, with foreign outlets largely gone and a more slowly expanding internal economy than in pre-war years, a lower ratio of savings to income in the last 5 or 6 years has helped to prevent the income deflation and employment stagnation which idle savings unavoidably cause.

Community social expenditures added to private consumption expenditures have made England of late, as I have said, a high-consumption economy.

Professor Pigou noted that the decline in savings was very nearly equal to the excess of social expenditures in 1924 over 1911. Professor

Bowley finds that in 1911–12 only 3 percent of the national income was spent on social services, while 12 percent was expended in 1934–35; according to Colin Clark, expenditures benefiting the working classes have risen from 76,000,000 pounds in 1913–14 to 429,000,000 pounds in 1935–36. On the other hand, the total taxes born by the well-to-do rose from 177,000,000 pounds in 1913–14 to 685,000,000 pounds in 1935–36. Clark estimates that before the war taxation weighing on the working classes, consumption taxes, and the like, exceeded the social benefits from governmental expenditures, while by 1935 the value of social benefits received by the working classes exceeded by 21 percent all the taxes, direct and indirect, paid by this group.

According to his calculations, the sum redistributed from the well-to-do to the lower income groups amounted to 91,000,000 pounds in 1935–36, while Ursula Hicks, on the basis of later data, puts the figure at 110 to 115 million pounds.

In addition to the high level of consumption, including community consumption expenditures, social services, and the like, local governmental units in England have made important capital outlays on public projects and low cost housing financed in large part by borrowing. This is to be noted when we consider the whole fiscal plan in England and the whole budget in England, not only the National Government but also the municipalities.

The gross debt of the local authorities in England and Wales increased from 800,000,000 pounds in 1922 to 1,400,000,000 pounds in 1934. Taking account of the difference in population, this rise in local debt is very comparable with the annual rise in State and local debt in the United States in the decade of the twenties. New municipal issues have absorbed a considerable part of the flow of savings in England in recent years.

Then, returning to our own problem, let me sum up very briefly. Our tax structure bears heavily on consumption and for the so-called middle income brackets, from $2,500 to $50,000, relatively lightly on savings. We have in recent years been collecting large sums for social security but we have paid very little out into benefits. Our ratio of savings to income continues to be relatively high. We need, therefore, above all to find adequate outlets for our flow of savings into plant expansion and new construction if we are to avoid a depressed income level and chronic unemployment. To this end we should encourage private plant expansion wherever and by whatever means it is possible and reasonable to do so. We can get a great deal of private plant and equipment expansion. It will require consolidation, stabilization, and improvement in reforms already made.

It will require modification in our social security program, it will require reform in our tax structure, it will require stable and responsible labor relations, it will require adjustment of prices to the lower costs springing from technical improvements in order to tap potential demand and thus secure larger output, and thereby also larger private capital plant and equipment expansion.

After all these things have been done, it is my view, and on this there may be honest difference of opinion, that it will be necessary after all these things have been done with respect to private investment to supplement private plant expansion and equipment expansion with a reasonable amount and volume of public investment. There

should be no irresponsible spending. There are too many things urgently needed and useful on their own account. There is a sensible middle course which we ought to be able to agree upon as reasonable in view of the economic situation currently confronting us. No policy could be more wasteful at a time when there are large unused resources of both capital and manpower than to forego useful public outlays of a sort for which we will have something to show in the form of durable improvements and in the conservation and increased productivity of human and natural resources.

Mr. NEHEMKIS. Mr. Chairman, this concludes the presentation of the Securities and Exchange Commission for this day. If it is the pleasure of the committee, we are prepared to proceed tomorrow with a discussion of the way in which our great corporations finance themselves from their own internal sources, and carry on a discussion which Dr. Hansen has set forth before this committee both this morning and this afternoon.

The CHAIRMAN. Is it the desire of any member of the committee to question Dr. Hansen tomorrow? I don't think we would want to undertake it tonight. Of course, there are many, many statements made by the doctor which are thought provoking and which could be used as a basis for a prolonged examination. I don't know whether it is the desire of anybody here to recall him in the morning. Does anybody suggest that?

Dr. LUBIN. Mr. Chairman, will the witness be available for cross-examination at a later date?

Mr. NEHEMKIS. If it is the pleasure of the committee. Dr. Hansen will appear before this committee on two different occasions. Of course his subject of discussion will be different from what it is today. Today he has merely set forth for you the entire scope of the inquiry which will be discussed before this committee in the next 2 weeks.

Mr. FRANK. He is to be recalled, according to your schedule, on May 22.

Mr. NEHEMKIS. And he will also appear on one other day.

The CHAIRMAN. May I ask you, Doctor, before we adjourn for the evening, what your conception of consumption expenditures in the modern sense is, notably the sense in which this type of expenditure is appearing in England?

Dr. HANSEN. Private consumption expenditures, I think as one quite readily understands, includes, of course, the general run of expenditures on all manner of nondurable consumers' goods, and indeed on durable consumers' goods. Usually we do not include housing, but otherwise all other nondurable and durable consumers' goods.

The CHAIRMAN. Have you any reason to believe that in England the masses of the people are buying and consuming more food or buying and using more clothing than formerly was the case?

Dr. HANSEN. Yes; I think that definitely is the case.

The CHAIRMAN. How does that compare with conditions in the United States?

Dr. HANSEN. Both countries have had, if one looks back over a long period of 100 years, approximately the same percentage rise in standard of living over a long period.

The CHAIRMAN. And the rise in the standard of living is expressed, is it not, in the purchase and use of articles which a few years ago would be regarded as luxuries?

Dr. HANSEN. That is correct.

The CHAIRMAN. So we are living in a luxury economy, even though it may be more unstable than the economy of our grandfathers, which was far less luxurious but probably much more stable.

Dr. HANSEN. Definitely so; and the more we come to high incomes I think the more we consume durable-consumption goods.

The CHAIRMAN. So that the way to promote stability in our economy today is to bring about a condition under which the masses of the people can produce more of the commodities of luxury which industry today produces.

Dr. HANSEN. Yes; I think that is a large part of the problem. In the case of England, I should add to these private expenditures about which we have been talking, a very large amount of what we may call community expenditure, expenditure which is made in terms of social services, education, health, all the various forms of social insurance and the like.

Those community consumption expenditures are the ones, I take it, that have particularly increased consumption in England in recent years, in addition to the rise of private consumption expenditures to which we have referred, especially the rise of community consumption expenditures which have been made not by the individuals but in the form of these social services which has, above all, made England a high-consumption economy. You see, when I say a high-consumption economy I am using it in a relative sense. Not merely has consumption risen, but the ratio of income consumed by private individuals and by the community is larger than was formerly the case, and therefore the ratio of the total income saved is smaller than before. That difference has largely come, I think, because of the rise in community consumption of all the sorts that I have referred to.

Mr. NEHEMKIS. May I interrupt, Mr. Chairman?

I merely want to indicate briefly that at a subsequent date Dr. Hansen will testify specifically in detail on two of the items that have provoked discussion and thought before this committee, and I dare say that at that time many of the questions that must be in your minds at this time can be fully and amply explored with Dr. Hansen. I also should like to add that we will subsequently reach a stage of our discussion before you in which we will approach what might be characterized as the constructive phase of the development of our presentation, at which time there will be other witnesses who will develop in greater detail than obviously Professor Hansen can do, this afternoon, and I am certain that the committee will have full time at that period to explore a great number of questions that I know are in their minds.

The CHAIRMAN. The committee will desist.

Dr. LUBIN. May I just ask one question of fact? Is it not true that the per-capita consumption of goods in the United States in the year 1938 was considerably smaller than in the year 1928?

Dr. HANSEN. Yes; I expect that is the case.

Dr. LUBIN. Is it not true?

Dr. HANSEN. It is the function of vast unemployment.

Dr. LUBIN. Is it not further true that in England in the year 1928 the per-capita consumption of goods in 1938 was larger than in 1928?

Dr. HANSEN. Yes; England, having experienced more or less a chronic stagnation in the twenties, did achieve higher activity in the thirties, on the basis of various factors—one has to go into a great many things.

The CHAIRMAN. What did England do to bring about this stimulation of per capita consumption that we have not done?

Dr. HANSEN. I tried to explain two important features; one, this very large volume of community expenditures, financed in very large part from a tax structure that bears on savings, and then in addition to that she obtained a very great boost to her prosperity from the very low prices of raw materials and foodstuffs, enabling her to expand her consumption, and indeed capital outlays on various things, such as housing.

That was a very important factor there. There are a great many factors in the British situation. I would not pretend these are the only two. I think it is very dangerous and I would like to say so, to compare one country and another, and argue that one single factor explains why England has had an experience different from ours, and I am afraid the committee might think the things I have mentioned I regard as wholly explanatory of the situation. I do not so regard them. I haven't had time to go into all the various factors. I see certain differences between the English and the American situation. I have singled out certain points that bear on our problem.

The CHAIRMAN. I think we will all acknowledge that we have told only part of the story. Would you care to announce who your witnesses will be tomorrow?

Mr. NEHEMKIS. Tomorrow morning our witnesses will be John W. Barriger 3d, Chief of the Railroad Division of the Reconstruction Finance Corporation, who will explain how the American railroads have financed themselves from their internal sources. He will be followed by Mr. Edgar M. Queeny, of the Monsanto Chemical Co.: and in the afternoon, Mr. Edward Stettinius of the United States Steel Corporation.

The CHAIRMAN. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon at 5 p. m. an adjournment was taken until Wednesday, May 17, 1939, at 10:30 a. m.)

# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

WEDNESDAY, MAY, 17, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
*Washington, D. C.*

The committee met at 10:55 a. m., pursuant to adjournment on Tuesday, May 16, 1939, in the Caucus Room, Senate Office Building, Senator William H. King, presiding.

Present: Senators King (acting chairman) and O'Mahoney; Representatives Reece and Williams; Messrs. Frank, Henderson, O'Connell, Lubin, Berge, Patterson, and Brackett.

Present also: Senator Robert M. La Follette, Jr., of Wisconsin; Representative James M. Barnes of Illinois; Joseph Borkin and Ernest S. Meyers, Department of Justice; Kenneth Tupper, Department of Commerce; Willis J. Ballinger, Federal Trade Commission; Thomas Blaisdell, Securities and Exchange Commission; Peter R. Nehemkis, Jr., special counsel, Investment Banking Section, Securities and Exchange Commission; and Joseph R. Kelley, associate counsel, Investment Banking Section, Securities and Exchange Commission.

Acting Chairman KING. The committee will be in order. Mr. Nehemkis, is your witness ready?

Mr. NEHEMKIS. Mr. Barriger.

Acting Chairman KING. Mr. Barriger, do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. BARRIGER. I do.

## TESTIMONY OF JOHN W. BARRIGER, III, CHIEF, RAILROAD DIVISION, RECONSTRUCTION FINANCE CORPORATION, WASHINGTON, D. C.

Mr. NEHEMKIS. Will you state your name and address, please?

Mr. BARRIGER. John W. Barriger, 3d, Chief Examiner of the Railroad Division in the Reconstruction Finance Corporation, Washington, D. C.

Mr. NEHEMKIS. Senator King, I desire to read into the record the qualifications of this witness. Mr. John W. Barriger, 3d, is Chief Examiner of the Railroad Division of the Reconstruction Finance Corporation and has held that post for the past several years. Prior to that time this witness was a member of the statistical department of Kuhn, Loeb & Co. during the years 1927–29. This witness has also been associated with Calvin Bullock & Co., in charge of railroad matters, during the years 1929–33.

Mr. Barriger is co-author of the Prince Plan of Railroad Consolidation. He was associated with the Pennsylvania Railroad in their maintenance and transportation departments during the years 1917–27.

Mr. Barriger, do I understand that you are a graduate of the Massachusetts Institute of Technology and that you hold a degree as civil engineer?

Mr. Barriger. Yes.

Mr. Nehemkis. Have you discussed your testimony with counsel?

Mr. Barriger. Yourself.

Mr. Nehemkis. I am glad to have you clarify it, since there is some doubt in your mind. In spite of that discussion, is the testimony you are about to give this morning your own considered facts and conclusions?

Mr. Barriger. It is.

Acting Chairman King. I assume that in view of the fact that he subscribed to an oath he would tell the truth.

SOURCES OF RAILWAY CAPITAL 1921–1937

Mr. Nehemkis. Are you prepared to testify, Mr. Barriger, to the sources of the capital funds of railways?

Mr. Barriger. I am.

Mr. Nehemkis. Will you proceed and state your statistical sources?

Mr. Barriger. The statistical sources are the published records of the Interstate Commerce Commission, which, in turn, are based upon the sworn statements of individual railroads to the Commission. Many of these statements are taken directly from its blue book of statistics of railways of the United States. To some extent these statistics are based on the underlying data from which that blue book is prepared. I will submit later today mimeographed copies of the statements from which I shall testify and those mimeographed sheets will state on each column the exact source of the data.

I want to express my appreciation to the Bureau of Statistics of the Interstate Commerce Commission for preparing this data in accordance with the formula which I suggested, after consultation with Mr. Nehemkis and one of his associates, to be certain that it covered the subject of their inquiry.

Mr. Nehemkis. Will you proceed, Mr. Barriger, with your discussion, explaining as you go along, in your own words and in your own way, the various categories of capital sources and the expenditures as set forth in your work sheets? I am going to leave it to you to carry on the discussion in your own words, telling the committee the story of how the American railroads have financed themselves largely from their own internal sources. Will you proceed, Mr. Barriger?

Acting Chairman King. How far back do you go in the discussion of the problem?

Mr. Barriger. 1921. The end of the first full year after Federal control marked an epoch in American railroad history. I regret that I do not have the mimeographed sheets which would aid you in following my discussion, which will be merely to explain the topic headings and to call attention to the totals.

I think that most of the column headings are self-explanatory, but, nevertheless, I shall go over them point by point to be certain that

there may be no doubt as to what each means and to discuss the relative importance of the different sources of capital.

Any healthy industry must have continuous access to new capital. It can obtain it through the security markets or out of its own revenues to the extent that the expenses and the fixed or the discretionary return to capital already invested in the industry will permit.

The data which I shall present will measure the amount of capital going into the railroad industry over this period of years, '21 to '37, and the source from which it was derived.

The industry's own revenues appear to have been the principal source of its capital. This may or may not have been a healthy situation. The revenues of a railroad are, first of all, a fund out of which must be paid the operating expenses which must currently be met if the railroad is to continue to do business. Those are primarily wages, material bills, and taxes. After that remains a balance which may variously be reinvested in the property or distributed to those who have furnished the capital. That which goes to capital is in some measure beyond the discretion of the management to the extent that it is represented by fixed interest-bearing securities, although even there management may have some discretion because it can always seek resort to the courts in bankruptcy or receivership if it finds that the fixed-capital returns are too serious a drain.

The income payments are largely discretionary.

This balance remaining after the necessary expenses of operation are paid may be subdivided into two categories, that which would be earmarked as depreciation, and that which would be earmarked as earnings for capital whether directly distributed to the security holders or held as undistributed earnings.

I would like first to discuss depreciation charges. Whenever a railroad train is operated it takes some life out of the property and the equipment. Replacement of that service life is properly a charge against that operation. However, that is not a charge which can be paid at that particular time. It is a bill for present-day operations which will have to be met and paid at some future date, which is anticipated by the depreciation charges. These charges are included in operating expenses, but are not immediate expenses in the same sense that wages and materials and taxes (which is a charge rather than an expense) are.

There is a distinction between depreciation for road and depreciation for equipment which I may get into later, for generally speaking, the railroads do not charge very important sums for depreciation of roadway. However, the depreciation of equipment runs into very substantial amounts. Depreciation of equipment can be definitely earmarked because a car or a locomotive wears out or becomes obsolete as an entire unit, and its replacement in full is a definite factor, and the measure of depreciation of that unit of equipment can be definitely traced. Accordingly, depreciation of the equipment is developed to a relatively exact accounting science and each unit on the books is depreciated at a fixed rate per annum, determined by engineering studies and, of course, under Interstate Commerce Commission supervision.

Cash derived from depreciation of equipment is very largely utilized to replace it in kind, by modern units. It is a matter of regret

that to some extent in recent years railroads have had, because of financial pressure, to use the funds derived from the depreciation charges to meet deficiencies in bond interest, but that is another question.

Depreciation of equipment is precise and specific and is required of every railroad by the Interstate Commerce Commission. The very important aggregate of these charges in the operating expenses are produced in this manner, and this represents a large sum of money available for replacement of obsolesent equipment by the purchase of new units.

On the other hand, depreciation of roadway and structures presents a somewhat different problem from that of equipment depreciation, because while no amount of maintenance can prevent ultimate obsolescence and retirement of equipment, with proper maintenance and development there need be no depreciation of roadway from the standpoint of providing stated funds for replacement. A locomotive or car becomes too antiquated for use and must be replaced in its entirety, but the roadway and track does not. Individual ties and rail and other parts must be replaced by heavier and better material, but with a normal maintenance program, the yearly budget permits adequate renewals and improvements as required and the uniformity of the work on soundly maintained and financed lines makes it unnecessary to provide special funds except in the case of certain specific facilities such as a particular bridge or building.

Acting Chairman KING. How do you treat abandoned roads? I know of some roads four and five hundred miles in length which have been abandoned. Do you charge that to loss of capital?

Mr. BARRIGER. They are written out of the capital accounts through the maintenance of way expenses normally, but where a very heavy write off would be made so that it might seriously distort the earnings of the railroads and in any one year possibly change an income to a deficit or make a small deficit a large one, the Interstate Commerce Commission, because of the financial situation of recent years, has permitted large amounts of property to be written off directly through profit and loss. To that extent, you might say the income accounts are slightly distorted because any write off like that probably should be reflected in the income account because, to the extent that that was not provided for, income in previous years has really been overstated.

I risked trying your patience a little bit with these discussions of depreciation charges to indicate why road depreciation is small and equipment depreciation is large, and possibly I should just continue this discussion by pointing out, in the period under discussion, the total depreciation charges to operating expenses for road were $124,000,000. That represented a fund of that amount available for capital or other corporate purposes, on the other hand, equipment depreciation totaled $3,161,471,000 in that period, and at the same time there were depreciation reserves for nonoperating physical property—that would be hotels and warehouses and other things of that character—amounting to $9,468,000. Total charge for depreciation—

Excuse me, I should go back and point out that retirements were $307,629,000, and may I stop here and digress a minute to point out that those equipment retirement expenses arise by actual retirement

of a piece of equipment for which depreciation reserves had not been built up to the extent necessary to balance the book value less the depreciation reserve, which was that much in excess of the salaries value. This additional write-off which had to be made at the time the units of equipment were retired, and those were included in operating expenses as specific retirement charges in the same sense that I indicated a few minutes ago, when you write off a branch line unless it is with special permission through the profit and loss account that is written directly into the operating expenses through the maintenance of way account.

The sum total of those depreciation and retirement charges was $3,603,000,000.

Acting Chairman KING. That is between the years you referred to 1921 to what date?

Mr. NEHEMKIS. 1938.

Mr. BARRIGER. Excuse me, '21 to '37, because the combined figures for last year are not yet available.

Mr. NEHEMKIS. That will be the period under discussion throughout.

Mr. BARRIGER. The undistributed earnings were $1,948,000,000 and those represent earnings which either were undistributed because it was net income not paid to stockholders, or undistributed earnings of railroads in bankruptcy or receivership not paid to the bondholders. The Missouri-Pacific or C. & N. W. or other railroads now in bankruptcy may show very substantial net deficits, but of their calculated fixed charges actually little is being paid to security holders, only some underlying divisional bonds, and so forth, and the residual earning power which might go to other bondholders is actually held within the property and reinvested.

Senator KING. There might be undistributed earnings when the bonds matured and were not paid, when interest was not paid, when the road was in receivership and the stockholders didn't receive a dollar on their investment.

Mr. BARRIGER. Yes.

Acting Chairman KING. That is rather paradoxical, isn't it, to have undistributed earnings with all those obligations undischarged.

Mr. BARRIGER. Yes; it does seem to be that way, but that is the way properties are built up during receiverships.

Dr. LUBIN. What was the actual amount of undistributed earnings that under other circumstances would have gone to bondholders and other people to whom they are indebted? [1]

Mr. BARRIGER. I regret that I do not have here our detailed computations of the amount of undistributed earned interest which was held back by railroads in bankruptcy or receivership.[1]

Mr. NEHEMKIS. You could make that available?

Mr. BARRIGER. I could make that available. It is rather a substantial sum. Take, for example, in the case of the Missouri-Pacific system lines, that is the Mo.-P., the I. G. N., and the Gulf Coast, together have nearly 30 million dollars fixed charges a year. They are paying only two or three million a year out. Now to be sure they

[1] Mr. Barriger subsequently submitted data on excess of total income over fixed charges paid by Class 1 railroads in receivership or trusteeship, which appears in the appendix on p. 4123.

are not earning any substantial portion of that 30 million dollars, but they are earning probably three or four times the amount which they are actually paying out to their divisional bonds and their equipment trust securities. When I said three or four times, I should limit that to the best of the present years, that is '36 and '37. Those withheld earnings in the case of bankruptcy and receivership railroads, however, total a very substantial sum, and I would rather give it to you from the record than from memory.

Dr. LUBIN. Offhand, would you know whether it is a substantial proportion of that $1,900,000,000 that was reinvested?

Mr. BARRIGER. I would say that it was a substantial sum. It would run several hundred million because at the present time I am sure there is more than a hundred million dollars' worth of bond interest—I know there is a good deal more than a hundred million dollars' worth of bond interest. I suppose it would run nearer two hundred than one hundred million, in default.

Acting Chairman KING. In interest?

Mr. BARRIGER. In interest and while, of course, the amount of default does not represent the undistributed earnings, possibly one-third of the amount in default is being earned and held in the property. That is a rough guess and I might be in error.

Mr. NEHEMKIS. You were describing, Mr. Barriger, the various categories of capital sources. In addition to those you have already described, what other capital sources do we have in the American transportation plant?

Mr. BARRIGER. When we consider income sources, there are the sale of property and miscellaneous assets and certain nonoperating income which is earned by railroad subsidiaries but not taken directly into the parent company in the form of dividends or interest, and there are a number of other minor sources which I need not go into at this time but which will be explained in full on this sheet, as I turn it in to you, which over the period of 1921–37 aggregated nearly a billion eight hundred million more.

In addition, strangely enough, there were aid grants and gifts.

Mr. NEHEMKIS. What does that mean Mr. Barriger?

Mr. BARRIGER. Well, those represent primarily gifts from cities, from corporations, and individuals, for the purpose of assisting the railroad usually in developing some facility which will be of benefit to the donor and the railroad, but the railroad actually owns and controls the property and carries it on its books.

Mr. NEHEMKIS. If a railroad wants to construct a siding next to a particular piece of property, it may well be under certain circumstances that the municipality or local government or individual corporation makes a gift of that property to the railroad corporation, is that correct?

Mr. BARRIGER. That often occurs, and it is the aggregate of those gifts by individuals and corporations which over this period total 71 million, and to a certain extent that might be considered capital, although in many cases that would not be productive capital in the sense that it would earn a return. It might be beautifying the station or building a new terminal, things of that sort.

Mr. NEHEMKIS. But for the purposes of our discussion this morning we may regard that category as capital?

Mr. BARRIGER. Yes.

Acting Chairman KING. However, that gift might require a large contribution upon the part of the railroad company, which would more than offset any value that it received from the gift itself?

Mr. BARRIGER. Very true.

Acting Chairman KING. May be a liability rather than an asset?

Mr. BARRIGER. That is very true.

Mr. NEHEMKIS. In what instance might you have such a gift where actually it turned out to be a liability?

Mr. BARRIGER. Well, I don't know that the city of Chicago gave the Chicago Union Station any property, but if, for example, in the construction of the Chicago Union Station and the straightening of the river and related improvements there, anything was given by the city to Chicago Union Station. It might have resulted in this way; and the same way at Cleveland or other places. I couldn't give you a specific case without checking with some railroad. The sum total of income available for capital purposes from all sources I have mentioned, is $7,406,000,000 over this period of time.

Mr. NEHEMKIS. If I understand correctly, then, Mr. Barriger, for the period under discussion, 1921 through 1937, the last period when figures are available to us at this time, the American railroads had available to them from internal sources, as you have described them, 7 billion plus for plant expansion and other uses. Is that correct, sir?

Mr. BARRIGER. Yes; I would like to amplify that just a little bit by stating that is for plant expansion and plant replacement.

Mr. NEHEMKIS. Correct. I am glad you made that qualification.

Mr. BARRIGER. Because this is capital and capital goes in for two purposes; one is to replace the existing capital that is worn out and the other is the new capital to improve or to add to, and a little later on I will get into measurement of what went to replace and what went to expand and improve.

I think that on the tables that I will turn in, the explanatory comment will develop any point that I may have skimmed over too hurriedly.

Acting Chairman KING. Mr. Counsel, do you intend to offer those rather voluminous tabulations for the record? I see you have a large number of sheets there.

Mr. NEHEMKIS. Mr. Barriger had suggested that it might be of some interest to the committee at some future time at a leisurely moment to study these things, and he has very kindly consented to have them mimeographed so that it will be easier to read.

Acting Chairman KING. This is schedule A, as I understand. That doesn't absolve you from the duty of furnishing mimeographed ones.

(The schedule referred to was marked "Exhibit No. 559" and is included in the appendix on p. 4019.)

Mr. BARRIGER. If you will permit me, I might want to refer to that again and while I have a carbon copy of this, if I could take this back with me and turn it in later it would be a convenience.

Acting Chairman KING. You might give them a mimeographed copy.

Mr. BARRIGER. I shall. Schedule B of this table [1] shows the funds secured for capital purposes from the sale of stock and a subsequent

[1] See "Exhibit No. 560," appendix, p. 4020.

table which will show the quantity secured for capital purposes through the sale of funded debt introduced a difficult problem to separate capital which was for refunding or exchange purposes, and capital which was really brand-new capital in addition to what was already there. When stock might be issued in exchange for stock of other companies for the purpose of acquisition, as the Southern Pacific in the case of the Cotton Belt, and when stock was sold by the Chesapeake & Ohio to raise money to purchase stock of other railroads. Capital was shifted and not added.

We had to be careful, as best we could, to eliminate all of those things lest we got the duplication from new capital which went into property, or into investments for which railroad securities had already been issued and had created that investment. C. & O. purchase of control of Erie presented a problem of elimination of these intercorporate duplications, and whether or not we were overeliminating them or undereliminating them, I don't know, but we did the best we could and I think accurately within a reasonably small percentage of error, our computation indicates that over this period 362 millions of new capital in the technical sense of the word was raised through the sale of stock.

Acting Chairman KING. But that capital so obtained resulted, did it not, or did it, in the exchanges of one property for another?

Mr. BARRIGER. That is eliminating everything like that, which you might say represented a sale of stock in order to put a company in funds to acquire a property already created rather than creating new property.

Mr. NEHEMKIS. In other words, as distinguished from an original investment.

Mr. BARRIGER. Yes; original investment. Now we tried as best we could to eliminate all those intercorporate duplications and we got a net figure of $362,000,000 new capital raised through the sale of stock which went into creating railroad property.

Acting Chairman KING. To what purpose, to what use was that $362,000,000 put?

Mr. BARRIGER. Primarily for addition and betterments, but——

Acting Chairman KING (interposing). Personal property, that is rolling stock?

Mr. BARRIGER. Rolling stock and heavier rails, new lines, passenger terminals. It would be difficult to earmark exactly where that went because it went into a common fund like when you put grain into an elevator, you don't know exactly whose grain you are taking out. This we might say is what the lawyers call fungible goods and I think this money is in that character.

Acting Chairman KING. Some of it was utilized for rehabilitation of plants and roads and it could not be in any sense new capital independent of existing obligations and existing plants.

Mr. BARRIGER. It is new capital.

Acting Chairman KING. Replacing obsolete and obsolescent plants?

Mr. BARRIGER. To some extent replacing that, and to some extent adding new plant that was not there previously.

Mr. NEHEMKIS. To recapitulate the point, Mr. Barriger——

Acting Chairman KING (interposing). It wasn't available for the discharge of bonds or for interest or for the payment of dividends to stockholders?

Mr. BARRIGER. We tried to eliminate all of those things.

Mr. NEHEMKIS. In other words, we are dealing here with a category which may be described as plant, physical plant, as distinguished from financial operations, and this money, as Mr. Barriger has described, went into a combination of plant expansion and plant replacement, something physical as distinguished from something financial; correct, sir?

Mr. BARRIGER. That is correct, and in the same way we have prepared data on the funded debt of the class I railroad and show that eliminating refunding operations, because so large a proportion of bond sales are to meet maturities or to call existing high coupon bonds and replace with bonds of lower coupon rates which represents no new money going into the railroad industry. That is simply an exchange of holdings. We have tried to eliminate that in this case and in addition to the sale of bonds we have added the sale of receivers certificates—receivers' and trustees'—because we regret in recent years that has become an important instrument of railway finance, and we find that over this period the net capital raised through the sale of funded debt available for plant development and plant expansion and plant rehabilitation replacement, and so forth, was $1,575,000,000.

Acting Chairman KING. Do your figures show how much of that resulted from the sale of receivers' certificates?

Mr. BARRIGER. That is in there and that is——

Acting Chairman KING (interposing). And trustees' certificates?

Mr. BARRIGER. That is approximately $65,000,000.

Mr. NEHEMKIS. Is it agreeable with you, Senator, if I offer these in the entirety and not interrupt each time?

Acting Chairman KING. No objection, just so they are identified as we proceed.

Mr. BARRIGER. I have all of these in one bound volume.

Acting Chairman KING. When you refer to a sheet you had better call it schedule A, B, or C.

Mr. BARRIGER. I then state that schedule B will be a table of funds secured for capital purposes from the sale of stock and schedule C will be a similar statement of capital raised from the sale of funded debt.

Mr. NEHEMKIS. Just a moment, Mr. Barriger. I think we may confuse the reporter and if I may have leave of the committee I want to offer each individual document separately. I offer now a sheet entitled, "Schedule B, Funds Secured for Capital Purposes From the Sale of Stock, All Classes of Steam Railway Companies."

(The schedule referred to was marked "Exhibit No. 560" and is included in the appendix on p. 4020.)

Mr. NEHEMKIS. I offer now a sheet entitled "Schedule C, Funds Secured for Capital Purposes Through the Sale of Funded Debt, All Classes of Steam Railway Companies."

(The schedule referred to was marked "Exhibit No. 561" and is included in the appendix on p. 4021.)

Mr. BARRIGER. Schedule D totalizes the individual totals of B and C shown with the funds secured for capital purposes from the sale of securities of all classes, which was $1,938,000,000.

Mr. NEHEMKIS. I offer a sheet entitled "Funds Secured for Capital Purposes from the Sale of Securities, All Classes of Steam Railway

Companies," and, Mr. Witness, if as you refer to these you will just refer to the title you may help the reporter.

(The sheet referred to was marked "Exhibit No. 562" and is included in the appendix on p. 4022.)

Mr. BARRIGER. I will endeavor to do so. The next schedule E summarizes in its first column the capital derived from the income sources detailed on "Exhibit No. 559." The second double column which shows amounts and percents, lists the capital derived in each year from decreases in working funds, because that is a source of capital which I haven't previously touched on. You can draw down working capital for plant development just as you can sell securities. That is not as large a source and that is, you might say, an earmarking of income from future years, but the decreases in working capital in certain years which went into capital funds was 970 million. The sale of securities which we have just discussed, as I previously stated, aggregated $1,938,000,000, and the sum total of these three sources over a period of years, '21–'37, aggregated $10,313,228,154, which as near as we can compute it is the capital which the railroads had from all sources available for extension, expansion, betterment, and replacement of their railway operating properties, and also their many nonoperating activities.

And a little later on I shall introduce a statement showing how much of this went to replace capital that was worn out, so that is a gross and not a net figure, and by no means indicates, I might say, the financial expansion of American railroads.

Mr. NEHEMKIS. In other words, you will tie those two things up?

Acting Chairman KING. Any part of that $10,000,000,000 go to meet bonded indebtedness or from refunding operations?

Mr. BARRIGER. None of that went for those purposes. Now, some of that $10,000,000,000, as I will indicate a little later, was used to purchase securities of other companies; the large acquisitions by the so-called Van Sweringen railroads or when the Pennsylvania made certain purchases through some of its subsidiaries, when the Baltimore & Ohio made purchases of Reading, and so forth. So that is a gross figure.

Mr. HENDERSON. Do you want to introduce that in evidence? That is the grand total.

Mr. NEHEMKIS. Summary of funds available for capital purposes. I offer this in evidence.

Acting Chairman KING. It may be received.

(The summary referred to was marked "Exhibit No. 563" and is included in the appendix on p. 4022.)

Acting Chairman KING. Could you logically and accurately treat as capital, when you purchased new property, borrowed money through the sale of bonds for the purpose of acquiring new property—for instance, Van Sweringen, you stated that is included in this ten billion summary?

Mr. BARRIGER. Yes; purchases are included in there and that, technically speaking, does not represent new capital going into the industry.

Mr. NEHEMKIS. That is to say, as you distinguished a moment ago, Mr. Barriger, that is something which did not go into new plant; that was a kind of, shall we say, squirrel cage activity?

Mr. BARRIGER. Yes; and a little later I measure investments of that character, although at that time I will point out that not all of those investments were of this nature.

Acting Chairman KING. It would be inaccurate then to say that $10,000,000,000 was new capital or was invested for capitalistic purposes because a large part of it was utilized in the purchase of additional property which was railroad property?

Mr. BARRIGER. That is correct.

Mr. HENDERSON. As I understand it, Mr. Barriger, this statement up to date shows the source and the amount of funds that were available, and you are going to deal later with what——

Mr. BARRIGER (interposing). What was done with them?

Mr. HENDERSON. The disposal was?

Mr. BARRIGER. That is correct.

Mr. HENDERSON. Did you put into the record the percentages of these three main sources that make up the total?

Mr. BARRIGER. Yes; the percentages are computed.

Mr. HENDERSON. Did you put them into the record directly?

Mr. BARRIGER. No; I didn't mention them.

Mr. HENDERSON. Do you mind if I——

Mr. BARRIGER (interposing). I wish you would.

Mr. HENDERSON. As I understand it, 71.81 percent of the funds available for capital purposes for these railroads from 1921 to 1937 came from income; 9.40 percent came from decreases in working capital; and 18.79 came from securities.

Mr. BARRIGER. Yes, sir. From time to time in my previous discussion I alluded to depreciation charges to roadway and equipment, which were included in maintenance of way and equipment, respectively, and I also mentioned the retirements which went through those accounts, and I thought accordingly it might be helpful to put into the record the total maintenance expenses for road and equipment separately, and totalized for maintenance of class I railroads, excluding all of these depreciation and retirement charges. These are the current expenses for restoring the service life used up by the elements and wear, and these total large sums of ten billion eight hundred thirty-one million for the roadway maintenance; thirteen billion eight hundred and seventy-five million for equipment maintenance, or a total of twenty-four billion seven hundred and seven million for maintenance expenditures of the American railroads, '21 to '37, inclusive, excluding depreciation and retirements.

Acting Chairman KING. Do any of those numbers indicate the amount that was utilized for the purchase of trucks, passenger, and bus lines?

Mr. BARRIGER. No; I regret, Senator, that we have not broken the capital expenditures down to that detail.

Acting Chairman KING. At any rate, a considerable sum was utilized in the acquisition of bus lines.

Mr. NEHEMKIS. Could you tell us in a very general way, Mr. Barriger, what your understanding of the over-all amount which went for such acquisitions was? [1]

[1] Mr. Barriger subsequently informed the committee that he was unable to obtain the information on busses.

Mr. Barriger. I regret that I can't because the bus and truck acquisitions were, almost invariably, through subsidiary companies.

Mr. Nehemkis. Would it be a difficult matter for your statistical department to compile that material for the information of the committee?

Mr. Barriger. I shall endeavor to do it.

Mr. Nehemkis. We will be very grateful if we might have it.

Mr. Barriger. If it can be done, we will do it. I am not certain that the records are available, but if they are, it will be done.[1]

Acting Chairman King. What part of the expenditures to which you have referred were made by, or in connection with, subsidiary companies and what receipts, if any, were obtained from those subsidiary companies?

Mr. Barriger. When you speake of subsidiary companies——

Acting Chairman King (interposing). I am using the term you used.

Mr. Barriger. Yes. I presume you mean those nonoperating affiliates rather than a subsidiary operating railroad company, and if I may—I think this next table may cover that point.

Mr. Nehemkis. Before you do that, Mr. Barriger, may I offer into evidence a table entitled "Expenditure for Maintenance, Class I Railroads, Excluding Depreciation and Retirements."

(The table referred to was marked "Exhibit No. 564" and is included in the appendix on p. 4023.)

Dr. Lubin. Mr. Barriger, you just used the figure of $24,000,000,000 approximately that was invested in the roads between 1921 and 1937. Can you tell us offhand how that sum of $24,000,000,000 compares with the total valuation of the railroads as made by the I. C. C.?

Mr. Barriger. That sum of 24 billion was the amount expended on maintenance and charged in accordance with the Interstate Commerce Commission rules to operating expenses and excluded the charges for depreciation and retirements. That was an operating expense for repairing locomotives and cars and repairing track and repairing bridges, buildings, purely the ordinary routine maintenance and that proportion of replacement which the Interstate Commerce Commission accounting regulations require to be charged to operating expenses. If I may ask your indulgence to explain that point a little more fully. When a railroad replaces a 90-pound rail with a 112-pound rail, that proportion of the cost of the 112-pound rail which represents a mere replacement of what existed before would go into the operating expenses. The cost of the additional rail weight, and the cost of the laying of that additional rail weight—and, of course, that is worked out by engineering formula—would go to capital. So when you replace 90 with 112-pound rails, the principal part of the cost runs into a maintenance-of-way expense account, but a little bit of it—the equivalent to the additional material or the betterment—is capitalized.

Now, accordingly, ordinary maintenance is composed of those two kinds of charges; one is to operating expense, representing, you might say, replacement in kind; and the other, that which is in addition to replacement in kind goes into capital, where you have a betterment or an improvement. Where like replace like all an operating expense, as, for example, when ties are replaced; I might say that ties, accord-

[1] Mr. Barriger subsequently informed the committee that he was unable to obtain the information on busses.

ing to the Interstate Commerce Commission, are the only railway item which, when an improvement is made is not capitalized unless you so desire, and there is only one railroad that I know of that has ever desired to avail itself of the privilege of capitalizing the additional cost of the improved ties; that is to say, where treated ties of a superior quality replaced untreated ties of a lower quality.

Dr. Lubin. Mr. Barriger, when these rails are put in let's assume that so many new rails were put in in the year of 1938; are those written off partly in 1939 as they start wearing out?

Mr. Barriger. No; roadway and track is not depreciated because railroad plant does not wear out as a unit; it wears out gradually. When a car wears out, that whole car is destroyed at one time and replaced. Units of equipment are written down gradually, but on structures and track, there is a piecemeal replacement and the fact that the plant never wears out in entirety, leads to ordinary maintenance, if it is kept up to the required standard, fully replacing the service life, as it is taken out. No depreciation is charged save on certain large structures.

Railroads may depreciate a bridge; they may depreciate a particular building, but they are not required by the Interstate Commerce Commission to depreciate their roadway, although that is a subject about which there has been some discussion and the practice may later be changed.

Dr. Lubin. What does this mean in terms of the railroad accounts? In other words, if railroad A decides it is not going to replace rails this year, it is going to make them last another year if it can, does the same thing next year, and the year after, and the fourth year decides it is going to replace all it wants to replace. In other words, they replace only the essential ones in the first 4 years; their operating expenses take a terrific jump.

Mr. Barriger. They can be distorted. Maintenance expenses are in part a matter of policy. While the maintenance expenses are incurred currently, it is within the discretion of the management as to whether or not the maintenance at any one time shall be equal to the service life worn out, or shall be less than that in order to conserve revenues for other purposes. Or you can anticipate maintenance by doing more than you need, more or less doing next year's work in advance. Accordingly, maintenance expenses for any railroad probably should be averaged over a period of time rather than considered for a single year.

The next table, schedule F, summarizes the capital requirements of class I railroads and their lessor companies.

Mr. Nehemkis. What is meant by a class I railroad?

Mr. Barriger. That is a railroad with a gross revenue in excess of $1,000,000 a year. The class I railroads of the country earn about 98 percent of the gross revenues and carry about that proportion of the traffic of the country. Many of these large class I railroads comprise not merely the lines owned by the operating companies, but those leased to them. The Pennsylvania Railroad, for example, conducts a large proportion of its operations on leased railroad property; so does the New York Central and a good many others, and we would have to include those lessor companies. The Pennsylvania, for example, owns virtually no railroad mileage outside of the State of Pennsylvania, and not all of the mileage it operates in that State. The rest is largely leased railroad property,

so you should include all these leased lines to obtain the total capital requirements of all railways used in producing the revenues of the class I carriers.

Mr. NEHEMKIS. Would it be a fair statement, Mr. Barriger, that any generalizations you make about class I railroads broadly speaking, cover the American transporation system, the railroad system?

Mr. BARRIGER. In some cases these statistics that I have submitted are for class I railroads and in some they include smaller railroads, because I wasn't able at all to have a consistent separation all the way through, but the difference in material represents about 2 percent.

Acting Chairman KING. Would it be inconvenient for you to furnish the names of all the railroads which are embraced in your discussion, the mileage of each, and classification and the subsidiaries of each?[1] I would like to know something about these subsidiaries and what their functions are.

Mr. NEHEMKIS. Could you conveniently, Mr. Barriger, prepare a memorandum on that for the committee? Would that involve any great burden?

Mr. BARRIGER. No; that can be done.

Mr. NEHEMKIS. You will do that? Thank you very much.

Acting Chairman KING. Have you come to a stopping point convenient to you?

Mr. BARRIGER. I have two tables to discuss and I can run through them in 5 minutes.

Acting Chairman KING. We intended to adjourn at 12 o'clock. If you can do that in a few minutes, go ahead.

Mr. BARRIGER. This table F shows the capital requirements of the class I railroads and their lessor companies, for investment in transportation properties. This is the purpose to which this capital was put. Additions and betterments to railroad property totaled $9,480,000,000, new lines and extensions $380,000,000, a total of $9,860,000,000. The investments in miscellaneous physical property not related to railroad operation, $13,000,000. The sinking funds and miscellaneous deposits of that nature represented an actual decrease of $21,000,000, that is they drew $21,000,000 out of sinking funds to invest in the mortgage and property, presumably under the mortgages for which those——

Mr. NEHEMKIS (interposing). Expansion of plant, in other words.

Mr. BARRIGER. Expansion of plant of the mortgaged property securing the bonds into which those sinking fund payments were made.

Mr. NEHEMKIS. But a kind of physical investment, as distinguished from what you have previously described as financial investment; is that correct?

Mr. BARRIGER. Yes. Now the investment in securities and affiliated and subsidiary companies—and this is where investment in outside railway securities would come in, not this entire sum, but probably a substantial part of it: $814,000,000, other investments $3,700,000, increases in working capital $714,000,000, and the total is $10,569,000,000.

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[1] This information is available in the Fifty-first Annual Report of the Interstate Commerce Commission, Statistics of Railways in the United States, sec. C, pp. 214-247, inclusive.

This last table, schedule H, recapitulates the sources and applications, with the percentage.

Mr. NEHEMKIS. Just a moment, so we don't confuse the reporter, may I offer in evidence a table entitled "Capital requirements, class I railways and their lessor companies"?

Acting Chairman KING. It may be received.

(The table referred to was marked "Exhibit No. 565" and is included in the appendix on p. 4024.)

Mr. NEHEMKIS. And may I also offer in evidence, Senator King, a table entitled "Sources and application of railway capital"?

Acting Chairman KING. It may be received.

(The table referred to was marked "Exhibit No. 566" and is included in the appendix on p. 4025.)

Mr. BARRIGER. The last table, a supplement to table H, is primarily for the purpose of showing the credits for retired property to indicate the net increases in investment, the net development of the property which was approximately $5,400,000,000. As I indicated previously, it is just as important to provide capital for property worn out as for new property created.

In conclusion, may I state that we have not, throughout this table, been able to give effect to the discounts at which securities may have been sold, or the premiums realized in the sale of securities; that we have taken in all cases the par amount but I don't think that has introduced any error, because discount is written off as a charge to operating expense each year, or to profit and loss, and introduced a negligible error into the table.

Mr. NEHEMKIS. Senator King, may I offer into evidence a table entitled "Changes in Investment in Road and Equipment of Class I roads and their Leasor Companies."

Acting Chairman KING. It may be received.

(The table referred to was marked "Exhibit No. 567" and is included in the appendix on p. 4026.)

Dr. LUBIN. Mr. Barriger, can you in recapitulating, so that the figures may be more simply followed, state what the amount was invested in plant and equipment that was paid for from this fund which is made up of depreciation account, profits, and other sources of income that you mentioned in your first exhibit? What is that total?

Mr. BARRIGER. That was 7 billion and and some hundred million.

Dr. LUBIN. In other words, over a period from 1921 to 1937, $7,000,000,000 was reinvested in roads?

Mr. BARRIGER. Yes.

Dr. LUBIN. Under the accounting system of the I. C. C. which does not include maintenance of way as new investment.

Mr. BARRIGER. That is correct.

Dr. LUBIN. How does that 7 billion compare to the total value of the roads?

Mr. BARRIGER. The total value of the railroads as computed by the Interstate Commerce Commission is a little under $20,000,000,000.

Dr. LUBIN. In other words, roughly during this period of 18 years the railroads reinvested an amount equal to a third of their value as computed by the I. C. C.?

Mr. BARRIGER. Out of earnings.

Dr. LUBIN. Out of earnings and deductions?

Mr. Barriger. Yes, sir.

Mr. Nehemkis. Senator King, may I advise the committee that Mr. Stettinius will be present as the first witness this afternoon, if that is the pleasure of the committee.

Acting Chairman King. So you withdraw the witness for the time being and Mr. Stettinius will be here at 2 o'clock. We will reassemble at 2 o'clock.

(Whereupon, at 12 noon, a recess was taken until 2 p. m. of the same day.)

AFTERNOON SESSION

(The hearing was resumed at 2:15 o'clock upon the expiration of the recess.)

The Chairman. The committee will please come to order. Are you ready to proceed, Mr. Nehemkis?

Mr. Nehemkis. I am, sir.

Mr. Henderson. Mr. Chairman, it is the S. E. C.'s purpose with the next series of witnesses to present a general discussion of internal corporation financing, and the natural and logical source for expert testimony on questions of policy and the availability of internal funds for the financing of plant and equipment expansion is certainly the executives of typical leading American corporations whose experience we want to tap in this next set of hearings.

One of the things that the S. E. C. would like to bring out by means of these distinguished witnesses is the importance of internal sources of funds as compared to the tapping of savings on the outside. In other words, what is the relative importance from the standpoint of large American corporations of the availability of funds from depreciation and depletion accounts as compared with funds available through the sales of securities? Today a witness from R. F. C. discussed railroad financing from 1921 to 1937, and before we have completed this particular series of hearings testimony as to other fields will be adduced from other witnesses.

Are you ready to proceed?

Mr. Nehemkis. I am, sir.

The Securities and Exchange Commission calls Mr. Edward R. Stettinius, Jr., chairman of the board of directors of the United States Steel Corporation.

The Chairman. Mr. Stettinius, do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. Stettinius. I do, Mr. Chairman.

## TESTIMONY OF EDWARD R. STETTINIUS, JR., CHAIRMAN OF THE BOARD, UNITED STATES STEEL CORPORATION, NEW YORK CITY

Mr. Nehemkis. Mr. Chairman and gentlemen of the committee, may I ask that the following procedure, if it meets with the committee's pleasure, when we shall have occasion to deal with matters pertaining to facts and figures, and it is not possible for any one individual to carry everything in his mind, accordingly I suggest the following: That Mr. Stettinius avail himself of the aid of those who are sitting with him. I shall ask if he adopts the answer as his,

and if he so indicates, then that answer will go into the record. Is that agreeable to you, Mr. Chairman?

The CHAIRMAN. Without objection, that procedure will be followed. I don't think it will be necessary for you to ask in each instance if the witness adopts it. It will be adopted.

Mr. NEHEMKIS. Thank you, sir. Mr. Stettinius, will you indicate briefly the history of your association with the U. S. Steel Corporation?

Mr. STETTINIUS. I joined, Mr. Nehemkis, the U. S. Steel Corporation in April 1934 at the request of Mr. Myron C. Taylor, then chairman of the board. I received the title of vice chairman of the finance committee. I later was elected chairman of the finance committee and recently, about a year ago, was made the chairman of the board of the Corporation.

Mr. NEHEMKIS. As I understand it, Mr. Stettinius, the U. S. Steel Corporation is a holding company which was first organized in the year 1901; is that correct?

Mr. STETTINIUS. That is correct, Mr. Nehemkis.

Mr. NEHEMKIS. And am I correct in understanding that the U. S. Steel Corporation owns a controlling stock interest in various subsidiaries which as a group principally conduct integrated operations for the production and sale of a wide variety of finished and semi-finished steel products?

Mr. STETTINIUS. That is correct, sir.

Mr. NEHEMKIS. And am I correct in understanding that the principal subsidiaries of the U. S. Steel Corporation are the following: Carnegie-Illinois Steel Corporation, National Tube Co., American Steel & Wire Co., Oil Well Supply Co., Tennessee Coal, Iron & Railroad Co., Universal Atlas Cement Co., and Columbia Steel Co.?

Mr. STETTINIUS. I think the American Bridge Co. should be added as an important subsidiary.

Mr. NEHEMKIS. The American Bridge Co.?

Mr. STETTINIUS. Yes.

Mr. NEHEMKIS. And would you say that the following statement which I am going to read into the record was substantially correct, as indicating the principal products of the manufacturing subsidiaries of U. S. Steel Corporation: Rolled steel and forged steel products, flat rolled products, seamless and welded steel tubular products, oil field equipment, alloy steel, wire and wire products, high tensile steel products, structural steel, cement, pig iron?

Mr. STETTINIUS. That is substantially correct.

Mr. NEHEMKIS. Bearing in mind, Mr. Stettinius, that you are not confined to facts within your own personal knowledge, I am going to ask you to state in your own words some of the new processes of the U. S. Steel Corporation to the extent that you are prepared to do so. Will you begin, Mr. Stettinius?

Mr. STETTINIUS. Well, gentlemen, generally speaking; it must be realized that the steel industry has been through a revolution since the early 1920's. New products have been developed; the quality of others has been radically improved. While actually they are new materials, still in many cases they are called by the old names. Many of these improvements and developments have been made in the research laboratories of the steel industry and in the laboratories of the ultimate consumers. Large-scale experimentation has been necessary

and the fact is that the steel industry spends many millions of dollars annually carrying scientific studies and new developments forward.

Creation of new and improved products involved practically a complete rebuilding of the finishing facilities of the steel industry. The various forward strides in treating raw materials and in blast furnace and open-hearth practice are others. The Steel Corporation alone has spent over $500,000,000 in the past 10 years in improving existing facilities and in the construction of new plants and facilities to produce these new steel products to which I refer.

These rapid strides in the science of steel making have had and will continue to have a profound effect on the national economy. It has been possible to develop natural resources. The newer progress in transportation, the better preparation and the preservation of foodstuffs, the economical construction of modern plant and office buildings, and better roads, better agricultural buildings and products, improved airplane construction, have all—and other examples that I could mention—made distinct contributions.

Mr. Nehemkis, I should like to give a few brief, specific examples of individual products and individual industries that I think would be of interest to the committee, such as oil, food preservation, the automobile industry, railroading and structural, and then a word about stainless steel and housing which I think will be particularly significant.

Fifteen years ago there was a definite limitation on the utilization of oil as a natural resource, by reason of the fact that the steel pipe in use would permit drilling to only a depth of 5,000 feet. Improvement in the steel industry's method of producing pipe now enables oil drilling to a depth of 15,000 feet. This has tapped new sources of oil supply which are very important not only in peacetime pursuits but from the standpoint of national defense. A case in point is the Kettleman Hills fields in California where the first drilling of oil, as you know, was unsuccessful because of the limitation of the depths that it was possible to go with the product then at hand. Some years later by the use of the new pipe to which I have referred, these vastly rich reservoirs were successfully brought into production.

This has been true also in oil and gas fields in Texas and Colorado and to some extent in Louisiana.

Now, a word on food preservation and tin plate. Another important service, rendered by the steel industry is the preservation and handling of foods. In 1937 the steel industry provided tin plate for over 16,000,000,000 cans produced in this country. The tin plate produced today enables the packing of a wide variety of products that was not possible 10 years ago. A basic improvement in tin plate itself was necessary to accomplish this result.

In the automobile industry also distinctive advances have been made. Cold reduced sheets, the introduction of which has been an outstanding development, have made possible the all-steel top with the added safety factor and the new body and the fender and the hood construction which we now have. Not only that, but these sheets have been improved so that one forming operation, that is, the stamping of the metal, can now take place, compared with the several operations that used to be required when the old-style hot-rolled sheet was employed, which is a very important element.

There have been important developments, as you all know, in transportation. Faster, lighter, and more comfortable trains have become an actuality in the last 6 years. Stronger steels have been developed by combining chromium and other elements with steel, which lend special qualities, such as hardness, heat resistance, and resistance to corrosion. Alloy steels are used in a great many branches of industry. Most of the stressed mechanical and moving parts of machines are made of such alloy steel. Silicon alloy steels are standard for the production of transformers and in the field of generators and motors. In the building of tractors, and practically all kinds of farming equipment, various kinds of alloy steels are used in the production of important parts.

Likewise in the chemical and the processing industries, alloy steels have a place of high utility. The Steel Corporation, through its subsidiaries, has played a large part in the development and production of alloy steels. In recent years it has brought out an alloy steel known in the trade as Cor-ten. You would be interested I think to know where the name came from, the combination of the words "corrosion" and "tensile"—corrosion-resistant and high tensile, the trade name for this product.

This was developed particularly for the production of mobile equipment such as rolling stock, railroad trains, or street cars and busses, and the like. The production of this product has had a large influence in the reduction of the dead-weight load which has been significant in economies in this field.

In the case of Cor-ten, resistance to atmospheric corrosion is four to six times that of ordinary carbon steel, and the tensile strength is approximately double that of ordinary carbon steel.

Now, a word on stainless steel, which is a bit more dramatic, and I think would interest the committee. While most highly dramatized in connection with the streamlined train, stainless steel has a wide variety of uses in many fields. Many of the articles familiar in the home are made of this new product—table tops, cutlery, tableware, parts of the electric refrigerator, and other electrical devices use stainless steel in substantial quantities. Architects, as you all know, are using stainless steel widely in the interior and exterior of buildings, private and commercial. Stainless steel has entered into construction in the aviation industry in wing struts, ailerons, rudders, and other parts of the airplane, and the Steel Corporation has important plans for furthering the use of stainless steel in the aviation industry.

Rail improvements are another item. Constant improvements have been made, as you all know, in the weight and in strength and in quality of railroad rails, making possible great safety factors which have served to reduce accidents. New high-speed trains have brought about a great advance in this development. Specifically, major advances have been made in the heat treatment of rails whereby defects known as shatter cracks are greatly minimized.

I should like to turn briefly to structural steel. One of the widest uses of steel, as you all are familiar, is in the construction industry. Modern skyscrapers and bridges are dependent upon developments in structural steel. One of the more fundamental measures in recent years has been the standardization and the utilization of the improved wide flange beam. Prior to the early 1920's many structural sec-

tions were built up from plates and shapes, which involved considerable fabricating, resulting in a more costly and heavier section. The virtual elimination of the smaller built-up section has effected savings up to as much as 20 percent in the cost of the steel, erected, for high-tier buildings. For the lower-tier buildings, smaller apartment houses, etc., the savings is estimated at 15 percent.

In the building of bridges the savings have been estimated to have decreased the cost of the steel, erected, anywhere from 5 to 20 percent, and in addition to that there is, of course, the important factor of materially decreasing dead-weight load of the structure.

In the low-cost housing field, within recent years we have been studying the application of steel to the construction of residences and comparatively small buildings. Cooperative experimental work on steel framing and on systems of construction has been supported and numerous possible methods of construction have been analyzed from an engineering point of view. In our own laboratories the Corporation has designed and developed a system of fabricated houses which promises to make a very valuable contribution in the low-cost field.

It will be of interest to the committee, I am sure, to know that to meet the conditions prevailing in the South our subsidiary at Birmingham, Ala., the Tennessee Coal, Iron & Railroad Co., has developed and designed, and is now marketing, a complete set of farm buildings, including a house and a barn and the other outbuildings. These buildings are fabricated mainly of steel and are characterized by their low cost. It is a very distinct advance in the whole field. I haven't the exact cost figures before me, but the figure of $2,500 is a conservative figure to keep in mind for this unit.

Other improvements in the steel-making process, in the recovery from byproducts, and in mill practices involved in the production of modern steel products might be enumerated. These are equally important in their particular function of furnishing a better product at a lower cost. Credit for steel improvements must be shared by the various companies within the industry, and by their customers with their laboratories who have made this great development possible, and whose cooperation has made possible, as I say, the present-day advances in the science of steel making.

### SOURCES OF CAPITAL FUNDS—U. S. STEEL CORPORATION, 1921–1938

Mr. NEHEMKIS. Mr. Stettinius has just given us a very interesting presentation of some of the new frontiers, industrial frontiers, that his corporation is pushing forward. Now these frontiers have to be developed through some kind of financing, so I think now I should like to discuss with you, if I may, Mr. Stettinius, some of the ways in which the United States Steel Corporation has been able steadily to push forward into the new processes and products that you have been speaking of.

Turning now to your financing, your return to our questionnaire discloses that you accumulated $270,000,000 out of earnings over the life of your company, which was invested in plant, and that about $130,000,000 of that amount was accumulated between December 31, 1921, and December 31, 1935. Is it a fact, Mr. Stettinius, that the amounts so accumulated and invested represent that part of your

plant expansion or replacement necessitated by depreciation and obsolescence actually realized in excess of the reserves provided therefor?

Mr. STETTINIUS. That is correct.

Mr. NEHEMKIS. As of December 31, 1935, you revised your accounting so as to apportion two hundred seventy million dollars out of accumulated earnings, eighty-eight million plus to depreciation reserves and one hundred eighty-one million plus to obsolescence reserves. Is that correct?

Mr. STETTINIUS. That is correct.

Mr. NEHEMKIS. That revision to which I have just referred did not affect your surplus one way or the other, is that correct?

Mr. STETTINIUS. That is correct as to surplus not specifically appropriated.

Mr. NEHEMKIS. Out of the whole two hundred seventy million dollars you were able to allocate only eighty-eight million plus to specific depreciable properties, were you not?

Mr. STETTINIUS. That is right.

Mr. NEHEMKIS. So that the one hundred eighty-one million plus had to be absorbed in general over-all obsolescence.

Mr. STETTINIUS. That is correct.

Mr. NEHEMKIS. Now that $270,000,000 accounted in part for an increase in your reserves for depreciation and obsolescence between December 31, 1924, and December 31, 1935, of nearly $500,000,000, is that correct, Mr. Stettinius?

Mr. STETTINIUS. Yes.

Mr. NEHEMKIS. Overall, then, in the period from 1921 to 1938, inclusive, you have accumulated out of earnings about $1,000,000,000 for depreciation, obsolescence, and other factors, have you not?

Mr. STETTINIUS. Yes; approximately.

Mr. NEHEMKIS. And nearly a quarter of a billion dollars out of earnings for surplus account.

Mr. STETTINIUS. Yes; that is correct.

Mr. NEHEMKIS. Notwithstanding those accumulations, you thought it desirable to go to the public market for $100,000,000 through a debenture issue in 1938, is that correct?

Mr. STETTINIUS. That is correct, sir.

Mr. NEHEMKIS. You had done a good deal of internal financing prior to the occasion of your visit to the money markets, is that correct, sir?

Mr. STETTINIUS. We had, sir.

Mr. NEHEMKIS. That financing had included the continuous strip mill development, is that correct?

Mr. STETTINIUS. Correct.

Mr. NEHEMKIS. In other words, at the time of your public offering of $100,000,000 of debentures, I might say that your company had stripped itself a bit of cash.

Mr. STETTINIUS. Yes.

Mr. NEHEMKIS. To put the question somewhat differently, would you say, Mr. Stettinius, that your company had, perhaps, become a bit property poor at that time?

Mr. STETTINIUS. That is right.

Mr. NEHEMKIS. I think I have no further questions, Mr. Stettinius. You have given us the information I desire.

The CHAIRMAN. Do any members of the committee desire to ask Mr. Stettinius any questions?

Senator KING. How did you determine your depreciation and obsolescence, etc., and that large sum which had been set up to meet those charges?

Mr. STETTINIUS. Senator, I think if you would allow me perhaps to read our depreciation policy, which has been published in our registration statement to the S. E. C. and in our annual report to the S. E. C., that would answer the question of how we meet the expenditures.

Senator KING. I just wanted to know how you allocate it, how much depreciation with respect to mills, or exhaustion of ore supplies, or what not.

Mr. STETTINIUS. I think that is all brought out in this statement of depreciation and depletion policy.

Senator KING. You may read it then.

Mr. STETTINIUS (reading):

The annual depreciation provision for plant and equipment (other than investment in road and equipment of the railroads) is made on the straight-line method and is arrived at by applying against the investment cost of each facility a rate of depreciation based upon the life expectancy of that facility at its average operating use so as to provide a reserve to equal the cost of each facility at the end of its useful operating life. The life expectancy assigned to the depreciable facilities is based on the life experience of similar facilities over a long period of years under varying operating conditions. The plan also involves a revision in the rates when a change in life expectancy becomes apparent. The provision for depreciation in any year is reduced when the actual operating use of the facilities in that year is less than the predetermined average use, but is not reduced in as great a proportion as the actual reduction in operating use, and under no circumstances is reduced to less than 50 percent of the annual provision for depreciation at the full annual rate, even if such facilities are not operated during that year. The depletion rate per ton or unit mined or exhausted of raw materials (ore, coal, limestone, timber, etc.) is the pro rata investment cost of same arrived at by dividing the total estimated recoverable quantity in the respective properties in operation into the total investment cost of same. The annual provision is determined by applying this rate to the actual quantity of raw materials removed during the year.

That is the general policy, Senator, that has been followed since the formation of the Corporation in 1901.

Senator KING. I assume before this $100,000,000 bond issue was provided for, you furnished the S. E. C. the necessary data which you have indicated here.

Mr. STETTINIUS. Oh, yes, sir.

Mr. NEHEMKIS. Yes; that was an issue we registered.

Senator KING. Let me ask one other question. In view of the great improvement in developments in the steel product, the increased uses to which they have been put, I assume that that called for the scrapping of property, plants, and mills which had cost millions, if not hundreds of millions, of dollars.

Mr. STETTINIUS. In some cases, Senator, but the true answer to that is that the change in demand of the product has made it impossible to produce the new product in the older mills. Therefore, scrapping or obsolescence isn't really quite the truth, because these mills could be used for many, many years to come, but because with the demand for a different character of product by the consumer we have had to modernize.

Mr. NEHEMKIS. Mr. Chairman, may I offer into evidence several exhibits which complete the testimony of Mr. Stettinius, first an exhibit showing the sources of funds which we discussed a moment ago?

The CHAIRMAN. How do you identify this?

Mr. NEHEMKIS. As the "Sources and Disposition of Funds."

The CHAIRMAN. By whom was it prepared?

Mr. NEHEMKIS. This was prepared by the United States Steel Corporation.

The CHAIRMAN. Just for the purpose of the record, let the witness identify it so it won't go in on your authority but on the authority of Mr. Stettinius.

Mr. NEHEMKIS. Suppose I ask Mr. Olds, who is counsel for Mr. Stettinius, to offer this.

The CHAIRMAN. You may offer it if you will identify it.

Mr. STETTINIUS. We do identify it.

The CHAIRMAN. It may be admitted.

(The table referred to was marked "Exhibit No. 568" and is included in the appendix on p. 4026.)

Mr. STETTINIUS. Mr. Chairman, in answer to the Senator's question, may I say that we did file an A–2 registration statement with the S. E. C., a document in connection with our hundred million-dollar debenture issue.

Mr. NEHEMKIS. I would like to ask Mr. Stettinius to identify two further exhibits.

The CHAIRMAN. Very well.

Mr. NEHEMKIS. I think, Mr. Chairman, it will be unnecessary to offer any further exhibits.

The CHAIRMAN. Mr. Henderson, you indicated a desire to ask a few questions.

Mr. HENDERSON. About what percentage of capacity are you operating at the present time?

Mr. STETTINIUS. Approximately 42 percent, Mr. Henderson.

Mr. HENDERSON. Have you figured out over any period of time what the average use of your rated capacity is, say from 1920 to 1938?

Mr. STETTINIUS. Yes; we have those figures available, Mr. Henderson.

Mr. HENDERSON. I see them frequently in your reports.

Mr. STETTINIUS. I have before me a statement, Mr. Henderson, showing the average operations for the Steel Corporation for each year since 1920 through to 1938, inclusive, by months.

Mr. HENDERSON. I think I ought to say this was not a request. My selection of 1920 was just happenstance.

Mr. STETTINIUS. I will be glad to submit this.

Mr. HENDERSON. I would be very glad to have that submitted, Mr. Chairman, after I have asked Mr. Stettinius some questions on it.

Mr. STETTINIUS. Yes.

Mr. HENDERSON. At what percentage of capacity were you operating in 1920?

Mr. STETTINIUS. In 1920 for the year we averaged 88.3.

Mr. HENDERSON. What was the highest year between that and 1929?

Mr. STETTINIUS. The highest was 1923, 88.3; 1926 was 88.

Mr. HENDERSON. 1926 was 88. What was it in 1929?

Mr. STETTINIUS. 1929 was 89.2. Of course, you understand, Mr. Henderson, these are only purely the Steel Corporation's figures, not the steel industry's figures.

Mr. HENDERSON. Yes; I understand that.

The CHAIRMAN. Was there any change in the actual capacity in the meantime?

Mr. STETTINIUS. Mr. Henderson, on January 1, 1921, our ingot capacity was 22,693,900 tons; January 1, 1939, it was 25,790,000 tons.

Mr. HENDERSON. Had it been higher than that at any period or was it a constant growth?

Mr. STETTINIUS. I think it is fair to say that there was a constant rational growth over this 18-year period in our total ingot capacity, although during the period from 1932 to 1935, inclusive, our total ingot capacity was more than 27,000,000 tons, as compared with 25,790,000 tons today.

Mr. HENDERSON. In other words, all during that period you were either maintaining or slightly increasing your capacity?

Mr. STETTINIUS. Yes; but not really materially increasing our capacity for ingot production—rather changing the character of our capacity in finishing facilities.

Mr. HENDERSON. Finishing facilities?

Mr. STETTINIUS. Yes.

Mr. HENDERSON. What was the low point after 1929?

Mr. STETTINIUS. After 1929 our low was for 1932, when our production of finished products for sale was 18.3 percent of capacity.

Mr. HENDERSON. Eighteen point three; and what has been the high since 1929?

Mr. STETTINIUS. Since 1929? The high has been 71.2, in 1937.

Mr. HENDERSON. I understood that you had spent $500,000,000 in the last 10 years in replacement of equipment?

Mr. STETTINIUS. Modernization of finishing facilities really.

Mr. HENDERSON. Mainly modernization of finishing facilities?

Mr. STETTINIUS. Yes.

Mr. HENDERSON. During the 1920's while you had this rated capacity and the use indicated, did you have any substantial outside financing?

Mr. STETTINIUS. Up until 1920?

Mr. HENDERSON. Between 1920 and 1929?

Mr. STETTINIUS. No.

Mr. HENDERSON. So your capacity was maintained principally from internal financing?

Mr. STETTINIUS. That is correct.

Mr. HENDERSON. And then what was your policy between 1930 and say 1936, as far as replacement and expansion were concerned?

Mr. STETTINIUS. You mean——

Mr. HENDERSON. Did you have any substantial outlays during that time? What I am trying to get at is, at what point was this 500 million spent in the last 10 years—did that take place on an average of 50 million a year, roughly, or was it somewhat concentrated in one period?

Mr. STETTINIUS. Mr. Henderson, we anticipated you might be interested in that, and I have before me a brief memorandum entitled, "Modernization and Financing Program of the U. S. Steel Corporation from 1929 until 1938." Now I would——

Mr. HENDERSON (interposing). I must say that we have had no collusion on this.

Mr. STETTINIUS. No; we have had no collusion, Mr. Chairman.

Mr. HENDERSON. It was just a suspicion on your part I might ask this question?

Mr. STETTINIUS. I not only would like to offer this memorandum but I should like, briefly, to take a few minutes——

Senator KING. I think you might proceed, as far as I am concerned.

Mr. STETTINIUS. Mr. Chairman, in order that the committee may clearly understand the circumstances leading up to our $100,000,000 10-year 3¼-percent debenture issue which was sold in June 1938, I should like, with your permission, to relate briefly the inception and the carrying forward of a plant rehabilitation and modernization program which began in 1929, just prior to the depression.

About 10 years ago the Steel Corporation conducted an exhaustive study of the manufacturing facilities of its subsidiaries to ascertain what rehabilitation of plant and equipment might be necessary to meet present and future customer demands for the new and improved products which were being developed within the steel industry, and also to effect wherever possible economies in operation.

Work on this initial program, which primarily concerned the manufacturing plants in the Chicago district, was started in 1929. The bulk of the expenditure, however, came the following year, 1930, when approximately $143,000,000 was spent for plant and equipment; approximately $59,000,000 additional was expended on this program the following year of 1931. You will all recall, I am sure, the appeal made in November 1929 by the then national administration that industry continue all pending construction programs. The Corporation met this appeal and completed its initial plant rehabilitation program according to schedule.

During the dark years of 1932, 1933, and 1934 naturally no one could foretell the extent of the business depression. The Steel Corporation was then operating at a great loss. Since it was necessary that there be adequate working funds to carry through this period, expenditures for plant and equipment were smaller in these years than in the years just prior to and following that period. Nevertheless, the program to provide modern manufacturing facilities capable of supplying the new demands for steel products was carried on. For example, cold reduction mills at Gary, Ind., and a new continuous strip mill at McDonald, Ohio, were built.

Incidentally, these mills for the rolling of plate and strip are of the most modern type and are designed to meet the most exacting specifications of our customers. With the improvement of business in 1935 the Steel Corporation decided to go forward actively with its plant rehabilitation and modernization program. In February 1935 the expenditure of $47,000,000 for new facilities was authorized. During the 4-year period of 1935, 1936, 1937, and 1938 expenditures for modernization of plant and equipment aggregated in excess of $300,000,000.

Among the facilities installed during this period——

The CHAIRMAN (interposing). What was the period again?

Mr. STETTINIUS. The 4 years from 1935 to 1938, inclusive, $300,000,000. Among the facilities installed during this period I should

like to mention the 100-inch semi-continuous sheared plate mill at Homestead; the extensive new mills in the Birmingham district for the production of cold-reduced tin plate; and the new Irvin Works at Pittsburgh for the production of hot rolled strip and sheets and cold reduced sheets and tin plate. The new mills at Birmingham and the Irvin Works alone cost in excess of $100,000,000.

We were fortunate in having Dr. Lubin out in Pittsburgh last December at the opening of this mill. Now we realize that you gentlemen are terribly pressed for time, but if you would ever like to see a motion picture of this new mill, which can be shown in 15 minutes, we can arrange it for you: one of the most dramatic stories I know of in the industrial history of the present time.

These mills constitute modern, efficient, and completely coordinated units for the production of a wide range of flat-rolled finished products, such as strip, sheets, and tin plate. These mills were built to supply the new kinds of steel which today are used generally in the automobile industry, the refrigerator industry, and in the canning and tin-plate industry. These great expenditures at a time when the current business of the Steel Corporation was not prosperous, with the exception of the year 1937, substantially reduced the liquid assets of our Corporation. According to the figures submitted to the committee, cash and marketable securities were some $17,000,000 less at the end of 1936 than they were at the end of 1935.

Cash and marketable securities dropped another $38,000,000 in 1937. Early in 1937, when the outlook for the Steel Corporation was much improved over the preceding 5 years, the prospects for outside financing seemed to be more promising. The management of the corporation then gave serious consideration to the best way of raising $100,000,000 of new cash so as to avoid depletion of its cash position which had resulted and would result from carrying forward the balance of this great program to which I have referred.

In March 1937 the common stock of the Corporation, with par value of $100 per share, was quoted on the New York Stock Exchange well above par. The management thought there was a good possibility, in view of improved business conditions, that our stockholders would subscribe at par for an issue of 1,000,000 shares of common stock.

Legally, the stock could not be issued for less than $100 per share, its par value. It was never contemplated that such a common stock issue should be underwritten. Work was at once started on the preparation of a registration statement to be filed with the Securities and Exchange Commission covering an issue of 1,000,000 shares of common stock. The Securities and Exchange Commission was advised that the Corporation expected to file such a registration statement by June 30, 1937.

Although the registration statement was practically completed, once in the first half of 1937 and again in the second half of that year, such a statement was not filed because of the weakness which developed after March 1937 in the market for the outstanding common stock of the Corporation, making it impossible to sell common stock at $100 a share, the par value. Therefore, financing by means of an issue of common stock necessarily had to be definitely abandoned at the end of the year 1937.

On December 31, 1937, the unexpended balance of appropriations for the completion of the modernization program was approximately $80,000,000.

Mr. HENDERSON. What is that again?

Mr. STETTINIUS. Eighty millions at December 31, 1937; unexpended balance on authorized appropriations was $80,000,000. In view of this situation, the management deemed it prudent to borrow $50,000,000 from a group of banks in New York, Chicago, and Pittsburgh. This loan was made on February 1, 1938. Ten million dollars of this loan was for 1 year, forty million was equally divided between 2- and 3-year maturities. The rates of interest were those currently in effect for bank loans of this character.

The management of the Corporation did not feel that the cash requirements of the Corporation were fully met by this $50,000,000 bank loan. Accordingly, the Corporation in 1938 converted into cash approximately $20,000,000 of its holdings of Government bonds, and on March 30, 1938, disposed of its holdings of $30,000,000 of first-mortgage 3½-percent bonds of the Duluth, Missabe & Iron Range Railroad, a fully owned subsidiary.

At the end of April 1938, at which time it seemed possible to bring out an issue of 10-year obligations upon satisfactory terms, we decided to proceed with an issue of unsecured 10-year debentures in the principal amount of $100,000,000. We felt that the registration of the issue under the Securities Act of 1933 could be completed by June 1, 1938.

The registration statement was filed with the Securities and Exchange Commission and became effective on May 31, 1938. The debentures were offered to the public on June 2 by an underwriting group of 102 members, headed by Morgan Stanley & Co. The debentures were sold to the underwriters at 98¼ and were offered to the public at 100. They carried interest at the rate of 3¼-percent per annum. The net proceeds from this debenture issue amounted, after underwriting commissions and expenses, to approximately ninety-seven million eight hundred and seventy thousand dollars, which were used to pay off the $50,000,000 bank loans, and the balance was added to the cash funds of the Corporation, which had been and were continuing to be heavily drawn upon to complete the plant-modernization program which I previously discussed.

The Corporation's cash and marketable securities at December 31, 1938, were approximately $52,000,000 more than at December 31, 1937, amounting to approximately $138,000,000 at December 31, 1938, as compared with approximately $86,000,000 the year before. While the unexpended authorizations for property additions and betterments at the end of 1938 amounted to approximately $22,000,000, the major part of the '36, '37, and '38 program which I have discussed was then practically completed.

### RELATION OF OPERATING RATIO TO VOLUME OF CAPITAL EXPENDITURE—U. S. STEEL CORPORATION

Mr. HENDERSON. As I gather, during the 1920's, while you had a very high use of capacity, you didn't have any occasion to go to the capital markets for any substantial sum. In fact, the kind of opera-

tion you had was a conversion operation. That was your major operation.

Mr. STETTINIUS. That is correct—financing largely from within.

Mr. HENDERSON. Then in 1929, before the break, you had a very substantial building program in contemplation which you went through with, and for the most part it was financed out of internal funds of the Corporation.

Mr. STETTINIUS. Correct.

Mr. HENDERSON. And then again in 1936, with better business conditions and the prospect of their continuance, you had another program which you have aptly characterized as bringing your equipment up to date.

Mr. STETTINIUS. That is correct.

Mr. HENDERSON. And in this period you depleted the accumulated funds which had not been depleted by your low volume of operations, and therefore you were in need of additional financing.

Mr. STETTINIUS. Right.

Mr. HENDERSON. Which, as you have just explained, has been obtained very satisfactorily.

Well, that means that over a period of about 10 years in the 1920's and another 9 to 10 years in the 1930's, you have had very little occasion to go to the market for a tapping of the reservoirs of savings there.

Mr. STETTINIUS. That is right, principally with the exception, Mr. Henderson, of issues of railroad equipment trust certificates for certain of the subsidiary railroads.

Mr. HENDERSON. But that was for something outside.

Mr. STETTINIUS. In relatively small amounts, and those were the principal occasions for going outside for funds.

Mr. HENDERSON. I am not pressing on this, but is that your understanding of the experience of other large corporations in your industry, or is yours, you might say, unique?

Mr. STETTINIUS. I think, Mr. Henderson, there has been, generally speaking, probably more outside financing within the steel industry than we typify.

Mr. HENDERSON. So that yours is a little unique; but let me ask you this: Companies competing with yours have been compelled to modernize by the same driving forces that required you to go into extensive modernization?

Mr. STETTINIUS. Entirely to meet customer demand.

Mr. HENDERSON. The actual requirements of your business occasioned that?

Mr. STETTINIUS. That is correct.

Mr. HENDERSON. You are running at about 42 percent of capacity now; and as I understand it, this recent 3-year improvement program has been completed. How long do you think it would be before you would have either to modernize in such a substantial way, as you recently did, or expand your equipment?

Mr. STETTINIUS. Well, I think anybody, to answer that intelligently, Mr. Henderson, would almost have to be a prophet, because he would be speculating with technological advance in the science chemically and metallurgicaly.

Mr. HENDERSON. Put it this way: If we had a similar change in consumer demand you would have to meet it by modernizing as needed.

But at what percentage of operation over any sustained period would you have to consider expanding your capacity? You expanded last time when it got to 60 or 70.

Mr. STETTINIUS. We didn't expand; we modernized. We didn't add substantially to our capacity.

Mr. HENDERSON. You expanded your demand on the durable goods market, certainly; regardless of whether it was additional capacity, which it was not, or whether it was modernization, you did come in and make a considerable demand on other machinery manufacturers and the like. That is the point I am getting at.

Mr. STETTINIUS. Oh, entirely correct.

Senator KING. Was the gross value of the output, by reason of that modernization in the market, larger or smaller—the value of your output after the modernization?

Mr. STETTINIUS. Well, I think that our consumers have got the benefit of most of the economies as a result of price pressure, sir.

Senator KING. What I mean is, were your gross receipts larger or smaller after the modernization?

Mr. STETTINIUS. We have a statement here. I would say that they should be larger theoretically, but actually perhaps they have been smaller as a result of the price structure during the time, which is a rather technical explanation. If you would like to have a statement prepared we would be delighted to do that.

Mr. HENDERSON. Isn't that also due to the low percentage of capacity at which you are operating, which throws an extraordinary burden of expense onto a small volume?

Mr. STETTINIUS. That is correct.

Mr. HENDERSON. Well, you don't have in mind, then, at what point of acceleration in demand that might be sustained you might have to consider an expansion of your capacity?

Mr. STETTINIUS. That is, to add to our facilities, to produce more goods?

Mr. HENDERSON. Yes. Do you foresee that, or have you any point in mind at which that might take place?

Mr. STETTINIUS. We haven't prepared a statement of that kind. We would be delighted to have our market analysis department apply themselves.

Mr. HENDERSON. I think you have answered my question. In the discussion of the future of the Corporation, that particular consideration has not entered. Isn't that what you mean?

Mr. STETTINIUS. That is correct.

Mr. HENDERSON. So in the foreseeable near future the prospect that you will be in the market, tapping for any large sum for an expansion of your capacity, is just not there?

Mr. STETTINIUS. I mean, if you want to take for example that an automobile normal year is a 5,000,000-car——

Mr. HENDERSON (interposing). Pardon me, I wouldn't. We will get into a discussion of normality, and I don't think 5,000,000 is a normal year.

Mr. STETTINIUS. There are sufficient sheet facilities in the steel industry today to meet the requirements of the automobile industry, for example, as far as we can see ahead.

Mr. HENDERSON. Do you get the point?

Senator KING. I get the point. That is, your productive capacity for the demands of the automobile or any other business, if it continues along the present lines, is sufficient to meet those demands?

Mr. STETTINIUS. That is correct.

The CHAIRMAN. Are there any other questions?

Secretary Patterson, please.

Mr. PATTERSON. Mr. Chairman, from two points I should like to comment on Mr. Stettinius' testimony. One point he has brought out and the other point he has not. I think the financial policy as you have outlined it, Mr. Stettinius, of modernization of research and expansion, is sound from the public as well as the private interests' viewpoint. That is point 1.

Now, point 2: You have not pointed out the broad social viewpoint in its public and labor relations that has challenged your company. Both showed that private interest and public interest can, as they should, work together.

Now, what I am specifically interested in is the statement you read about housing. Do I understand that the Steel Corporation has a subsidiary that is set up to do a housing job?

Mr. STETTINIUS. The housing reference, Mr. Secretary, was that our subsidiary Tennessee Coal, Iron & Railroad Co. at Birmingham, Ala., has recently designed and put into production, along with its other manufacturing facilities, a system of building small four- or five-room houses with the outbuildings, which will be built in semi-mass production and virtually prefabricated so they can be erected on the job. That, we feel, is going to be a distinct advance in the South from the standpoint of giving low cost durable housing to both the farming area and the industrial area of the South, but that is entirely within the Tennessee Co., Mr. Patterson, and concerns a new product.

Dr. LUBIN. Mr. Stettinius, it may be that before I came you talked of this point and, if so, it won't be necessary to attempt to answer this question. I was very much interested in what you said about the expansion of plant and equipment of the United States Steel Corporation and its subsidiaries. I don't know whether you have seen this mimeographed sheet that members of the committee have.

Mr. STETTINIUS. Yes; we have a copy of it.

Dr. LUBIN. I note you have added to your plant and equipment in the last 19 years approximately a billion and a quarter dollars, and I note, too, that you have raised $148,000,000 in cash through the sale of common stock. Offsetting that, however, you have retired certain of your funded debt.

Mr. STETTINIUS. That is right.

Dr. LUBIN. In other words, you have invested a billion and a quarter in plant and equipment, and it is quite evident that the bulk of it did not come from outside sources. The figures on this table show you had $937,000,000 allowances for depreciation and depletion and you had $191,000,000 from your profits that you retained.

Mr. STETTINIUS. That is correct, Dr. Lubin.

Dr. LUBIN. In other words, the 19-year history of your company is pretty ample evidence of the fact that in at least an organization such as yours the net savings set aside from depreciation and depletion and profits (when there are any) are almost sufficient to keep an organization such as yours modernized and up-to-date.

Mr. STETTINIUS. That is correct.

Mr. NEHEMKIS. Commissioner Lubin, do you want to make one correction for the sake of the record? The public issue of the U. S. Steel Corporation was a $100,000,000 debenture issue.

Dr. LUBIN. I am quoting from this table, which says common stock issue.

Mr. STETTINIUS. That was another operation in 1929. That wasn't the 1938 debenture issue to which you are referring, Mr. Nehemkis.

Senator KING. There were two issues, were there?

Mr. STETTINIUS. An internal conversion issue of 1929; it wasn't outside, Senator. The stock issue in 1929 was for the most part sold to our stockholders, and the proceeds therefrom were used for retirement of our bonds.

Dr. LUBIN. May I ask one further question. In your knowledge of the steel industry, dollar for dollar, do you think it costs more or less to replace capacity as compared, let's say, with 15 years ago? In other words, for each dollar of new investment in plant and capacity in terms of productive capacity, do you get more or less?

Mr. STETTINIUS. I should say, while I have no figures available, my impressions are that capacity today costs more, Dr. Lubin.

Dr. LUBIN. So that over a long-run period if this tendency continued it would not be necessary for you to invest all of your depreciation funds in equipment to maintain the same capacity that you formerly had before you wrote your equipment off.

Mr. STETTINIUS. It is the other way.

Mr. HENDERSON. It is the other way; in other words, to come up to capacity in your recent improvement program, you probably had to spend more per 5 or 10 percent of rated capacity for replacement.

Mr. STETTINIUS. Sure.

Mr. HENDERSON. But the anticipation was that the cost of manufacture would be considerably reduced.

Mr. STETTINIUS. Yes; that is correct.

Senator KING. The cost of further modernization would depend upon the complexity of the demand by the public. They might ask for products that would cost a tremendous amount to produce the necessary machinery for fabrication, so it would be rather difficult to determine what you would spend for modernization without knowing the character of the modernization that was being demanded by the public.

Mr. STETTINIUS. And the kind of product, absolutely, Senator.

Mr. HENDERSON. On the other hand, as you go along from year to year you will probably, as you did in the 1920's, spend currently a certain percentage to keep the actual equipment up to capacity.

Mr. STETTINIUS. That is right.

Mr. HENDERSON. As I gathered, from the answer you gave me, you kept fairly close to twenty-two million tons of ingot capacity and had a slightly rising tendency during the 1920's.

Mr. STETTINIUS. That is approximately correct. Our total ingot capacity was about 22,600,000 tons in 1921; at January 1, 1939, it was 25,790,000 tons, although it had been more than 27,000,000 tons in the period from 1932 to 1935, inclusive.

Senator KING. You stated for a number of years you were running behind. What was the maximum amount of your deficit for any one year?

Mr. STETTINIUS. One year we lost about $72,000,000, Senator; $71,175,705 in the year 1932.

Mr. HENDERSON. Was there any year particularly in recent history where you spent as much of the internal savings as you did in '35, '36, and '37? I mean, did you ever have a program as big as that? As I recall your figures, the 1929 figure was nowhere near as large as this enormous expansion.

Mr. STETTINIUS. No; we never had one as large, Mr. Henderson, in a similar series of years.

The CHAIRMAN. Are there any other questions?

Mr. STETTINIUS. You wanted this statement for evidence?

The CHAIRMAN. Will you just identify the table?

Mr. STETTINIUS. "United States Steel Corporation Statement of Finished Products For Sale, Per Cent of Production to Capacity," for the years of 1920 to 1938, inclusive.

The CHAIRMAN. The statement may be admitted for printing in the record.

(The table referred to was marked "Exhibit No. 569" and is included in the appendix on p. 4027.)

Mr. HENDERSON. Mr. Stettinius, if I get on delicate ground I hope you will not hesitate to indicate that to me. In the revision of the British steel industry which has been taking place with a certain amount of government intervention in recent years, one of the distinct requirements laid down by the Government as a condition for their intervening on tariffs and the like was that the British steel industry would undertake to come up to the efficiency of the mills of other countries. What do you think about American mill efficiency now, after your company and other companies have been through this private coming-up-to-customer demand? Does it compare favorably with other countries or is it above or just about equal?

Mr. STETTINIUS. Of course, Mr. Henderson, you appreciate that I am not a technical steel man, but I don't think there is any question that it could be said that our mills are now as efficient as any steel mills in the world today after this modernization program is carried out to which I have referred.

Mr. HENDERSON. The driving force for that came from your consumers and was done as a matter of business practice within the industry?

Mr. STETTINIUS. And cooperative effort between the steel industry and the consuming industries.

Mr. HENDERSON. Yes?

Mr. STETTINIUS. That is correct.

The CHAIRMAN. Are there any other questions?

Mr. Stettinius, may I ask you how many stockholders there are in the United States Steel Corporation?

Mr. STETTINIUS. About 220,000, if my memory serves me correctly, of the most recent date we have counted, at the end of 1938.

The CHAIRMAN. How many employees do you have?

Mr. STETTINIUS. At the present time, approximately 210,000 employees. That was the figure for March 1939.

The CHAIRMAN. Do these figures of stockholders and of employees include all of your subsidiaries?

Mr. STETTINIUS. They do, sir.

The CHAIRMAN. How many subsidiaries do you have?

Mr. STETTINIUS. Well, from the standpoint of operating steel subsidiaries, I think there would have to be a breakdown between steel producing subsidiaries and the railroads and the mining companies. In the actual production of steel, that is the steel-making subsidiaries, there are seven major subsidiaries of the steel producing kind—that is, the subsidiaries that Mr. Nehemkis read—of course, there are subsidiaries operating mining properties and railroad properties in addition but these are the steel producing subsidiaries.

The CHAIRMAN. But including these mining properties and producing properties approximately how many subsidiaries are there all told?

Mr. STETTINIUS. Over one hundred, Mr. Chairman.

The CHAIRMAN. In giving the figure of 210,000 employees, you have included the employees of all of these?

Mr. STETTINIUS. Of all the subsidiaries, that is correct.

The CHAIRMAN. How many of the employees are what you might call administrative employees, office employees as distinguished from the actual mill worker?

Mr. STETTINIUS. We have a chart showing approximately 15 percent on the salary rolls as compared with the wage roll—approximately 30,000 of the employees of the group would be on the salary roll rather than the wage roll.

The CHAIRMAN. That is 30,000 of the 210,000 are salaried employees . Are they employed all the year around?

Mr. STETTINIUS. That is correct.

The CHAIRMAN. What is the term of employment of those who draw wages?

Mr. STETTINIUS. It is on an hourly or production basis, Mr. Chairman, entirely depending upon production schedules. It is something entirely out of our control.

The CHAIRMAN. But you have a definite annual arrangement with those whom you call salaried employees?

Mr. STETTINIUS. Not always. A certain group of that—I would say about 21,000 employees, would be on the mill salary roll but would only work when the mill worked and would be given a rotation, maybe be off 2 days a week, so it wouldn't be fair to say that they worked a full year.

The CHAIRMAN. Well, are they a floating labor supply, as the wage worker is?

Mr. STETTINIUS. No.

The CHAIRMAN. They are a permanent labor supply.

Mr. STETTINIUS. They are a permanent labor supply.

The CHAIRMAN. In other words, they can depend upon the Steel Corporation and its subsidiaries for continuous employment, though not perhaps for 6 days a week throughout the year.

Mr. STETTINIUS. That is correct, Mr. Chairman.

The CHAIRMAN. What is the rate of compensation, I mean the limits, minimum and maximum, of those whom you call salaried employees on the annual basis? When does a man—in other words—become a salaried employee—when he draws how much money?

Mr. STETTINIUS. Of course, the rolling-mill operator might be earning $1 an hour and be on time, and the office boy might be earning $12 or $14 a week and be on salary.

The CHAIRMAN. There would be no distinction there at all?

Mr. STETTINIUS. It would be necessary to supply the committee with a statement showing that break-down.

The CHAIRMAN. It isn't necessary; I wouldn't want you to do that I was trying to bring out whether there was a distinction.

Mr. STETTINIUS. There is no distinction.

The CHAIRMAN. The distinction is between the administrative employee and the mill worker.

Mr. STETTINIUS. The office worker and mill worker.

The CHAIRMAN. And they fall into a different category of employment?

Mr. STETTINIUS. That is correct, sir.

The CHAIRMAN. How many plants do you have?

Senator KING. For the production of steel?

The CHAIRMAN. All these subsidiaries—approximately.

Mr. STETTINIUS. I find the correct number of subsidiaries is 140, all in all, taking in mining companies and everything. I think if you could let us supply for the record a statement——

The CHAIRMAN (interposing). If you desire to make it accurate, we will be glad to have you do so. But for my purposes these approximate answers you are giving are quite sufficient.

What was my last question?

Mr. STETTINIUS. You asked the number of plants. I have a statement before me showing we have 120 manufacturing plants in all subsidiaries throughout the Nation.

The CHAIRMAN. In how many States are they located?

Mr. STETTINIUS. Approximately 24.

The CHAIRMAN. In about 24 of the States?

Mr. STETTINIUS. Twenty-four States.

The CHAIRMAN. Do you have plants in foreign countries?

Mr. STETTINIUS. We have not, sir.

The CHAIRMAN. You have no plant in any foreign country?

Mr. STETTINIUS. No manufacturing plant.

The CHAIRMAN. What is the approximate annual labor bill of the United States Steel Corporation and its subsidiaries, exclusive of the salaried employees?

Mr. HENDERSON. Dr. Lubin can find it for you.

Mr. STETTINIUS. Dr. Lubin has it in his head. For 1938 the total pay roll was $282,209,000, Mr. Chairman.

The CHAIRMAN. What percentage is that of your expenditures, of your total expenditures; can you approximate that?

Mr. STETTINIUS. We have this material worked up in chart form, Mr. Chairman, and it so happens we have a pie chart showing exactly that.

The CHAIRMAN. That may be developed a little later. Let me then ask you this question: What is the effect, or what has been the effect of modernization upon the number of employees who work for wages?[1] Again, I don't necessarily want an accurate answer.

Mr. OLDS. We can give you later on all of that material.

The CHAIRMAN. Can you give me an approximate answer?

Mr. STETTINIUS. Mr. Chairman, may I call upon Mr. Ralph H. Watson, present vice president of the Corporation in charge of operations,

[1] Under date of May 19, 1939, Mr. Stettinius submitted further information on this subject, which was subsequently entered in the record as "Exhibit No. 597," see appendix, p. 4050.

who is here; he might be able to give you an approximate number of men employed today under modernized facilities in comparison with earlier operations.

Mr. WATSON. For those plants which are affected, which is a small part of the Corporation, it amounts to about a 25-percent decrease—only those plants that are affected. For instance, in the sheet and tin mills, it is between the slab and the black plate and tin plate and the finished sheet in sheets, compared to the old mills.

The CHAIRMAN. The effect of modernization in the plants in which the modernization has taken place has been to bring about approximately a reduction of 25 percent in the number of wage workers.

Mr. Stettinius, the story you have told to the committee this afternoon would indicate, would it not, that by and large the United States Steel Corporation, with all its subsidiaries, is financially self-sufficient?

Mr. STETTINIUS. Giving us normal operations, that is right, sir.

The CHAIRMAN. May I ask just one other question. In your first prepared statement when you spoke of the financing and the first issue when that was handed out, you said that you secured the rates which were currently in effect at that time for that character of loan, as I remember your language.

Mr. STETTINIUS. That was the $50,000,000 bank loan raised by a group of banks in New York, Chicago, and Pittsburgh: $10,000,000 first maturity and the balance equally divided, 20 millions and 20 millions, between two subsequent maturities.

The CHAIRMAN. What were the rates?

Mr. STETTINIUS. One and a half percent for the first maturity, 2½ for the second maturity and 3½ for the third maturity.

The CHAIRMAN. So the current rate for the character of loan made by the United States Steel Corporation was substantially lower than that which is available to the ordinary small-business man for loans which he may make at a bank.

Mr. STETTINIUS. Well, I would think that——

The CHAIRMAN (interposing). In other words, you are borrowing at about the same rate that the Government borrows.

Mr. STETTINIUS. No, sir; at higher interest rates than on Government loans.

The CHAIRMAN. And 102 different underwriters participated in floating one of these loans for you?

Mr. STETTINIUS. No; the 102 underwriters were used in the debenture issue. There were no underwriters at all involved in the bank loan. The 50-million-dollar loan was a clear bank loan and the underwriters were used in connection with the debenture issue.

The CHAIRMAN. Have you considered a policy of attempting to stabilize employment among your wage workers?

Mr. STETTINIUS. That is a subject, Mr. Chairman, that we have given a tremendous amount of thought and are studying constantly and continuously. I think we are gradually making strides in that connection, in leveling out our production curve.

The CHAIRMAN. You draw the picture of modernization, of increasing ability to turn out your product, decreasing number of employees, and, of course, a lack of stabilization among the workers.

Mr. STETTINIUS. Of course, Mr. Chairman, you must appreciate, sir, that it is the consuming industries that really first must get their

production schedules straightened out. The automobile industry and the tin-plate industry and the structural industry must call upon our supply of steel in even quantity if we are ever to be able to level out our employment curves satisfactorily.

The CHAIRMAN. Yes; of course that is an element.

Senator KING. Many of those subsidiaries are small companies connected with your mining operations and it is necessary to have separate corporations to deal with your mining claims in mining operations in various States; is that correct?

Mr. STETTINIUS. Of course, in Minnesota we are limited to certain holdings within certain mining companies, as you know, sir.

Senator KING. But many of your subsidiaries consist of small railroads to deal with your mining operations, and your mining operations in the various States.

Mr. STETTINIUS. That is correct, sir.

The CHAIRMAN. Mr. Nehemkis, it appears some other members of the committee would like to ask a few questions. I will ask Congressman Reece to preside, and may I ask you before we go (we have been called into the Senate to vote) whether you intend to call anybody else this afternoon?

Mr. NEHEMKIS. Yes; there is another witness to be called, sir.

The CHAIRMAN. Representative Reece, will you be good enough to take the chair and permit anybody who wants to ask some questions to do so?

(Representative Reece took the chair.)

Acting Chairman REECE. Mr. Barnes, you wanted to ask some questions.

Representative BARNES. I understood you to state you are operating at 42-percent capacity at the present time and you are employing 210,000, approximately, in those operations. In 1937 I understood you operated 71 percent of capacity or thereabouts.

Mr. STETTINIUS. That is correct.

Represenative BARNES. What was the total amount of your pay roll at that time?

Mr. STETTINIUS. In what year was that?

Representative BARNES. 1937, from the number of workers point of view.

Mr. STETTINIUS. The pay roll in 1937 was four hundred and forty-two million dollars.

Representative BARNES. Number of workers.

Mr. STETTINIUS. The number of employees was 261,000 in that year, average.

Dr. LUBIN. What was your rate of production that year on the average?

Mr. STETTINIUS. Seventy-one percent of capacity.

Acting Chairman REECE. Are there any further questions?

Dr. LUBIN. I would like to ask another question. Could you, offhand, tell us what the relative relationship is between the number employed today as compared to some period when you were operating at exactly the same capacity? In other words, you were just asked about your employment level in 1937. You were operating 71 percent of capacity. Now you are down in the forties and you have only cut your labor force by 50,000, although you have cut your capacity almost in half, your production.

Mr. STETTINIUS. Dr. Lubin, as you know, sir, we have been working with the Department of Justice and the Federal Trade Commission on a number of studies, and we have some of these figures available, but not all of them. We are working up some charts that later on, if you would like me to make up a statement for the record, I will do so. For the year 1927 it might be of interest to know that the number of our employees, figured on the basis of working full time, was 231,000; in 1937, the number of our employees, also figured on the basis of working full time, was 246,000. The actual number of employees was 255,000 in 1927 and 261,000 in 1937. You have a table there, Mr. Henderson, showing you the operations for different years.

Mr. HENDERSON. You assume that they stay in front of us.

Mr. STETTINIUS. In operations those were fairly comparable years. Our total employees, calculated on such a basis, were 231,000 in 1927 and 246,000 in 1937.

Mr. HENDERSON. As I see it, just to try to put your testimony on savings and investment in a nub, you are not in any time in the immediate future going to give any great amount of business to underwriting firms; in other words, you are not going to tap individual savings very much, isn't that about correct?

Mr. STETTINIUS. That is correct.

Mr. HENDERSON. And also on this 50-million dollar loan that you got from the banks, your rate was higher for the short term than the Government rate. But considering the enormous pools of credit which banks have, that was a very, very small dent to be made in those credit resources and was only used pending this formalized funded debt operation that you undertook.

Mr. STETTINIUS. A temporary loan until market conditions made it possible to issue a longer term obligation.

Mr. HENDERSON. As far as—without any criticism—your corporation is concerned, the prospect for individual savings being canalized into your operations is very, very low?

Mr. STETTINIUS. Yes.

Mr. HENDERSON. I think that is the importance of the testimony for this savings and investment presentation. We hope to go into, Mr. Chairman, at a subsequent time, price policy and capacity and the like with this witness, and I think that the committee will benefit tremendously with the same kind of generous and frank testimony the witness has offered here today.

Acting Chairman REECE. In response to a question by the chairman you gave the number of stockholders of the Steel Corporation. That did not include the bondholders, I assume?

Mr. STETTINIUS. No; it didn't.

Acting Chairman REECE. Do you know the number of bondholders?

Mr. STETTINIUS. I do not, sir. We don't have that tabulation.

Acting Chairman REECE. The committee greatly appreciates your appearance.

Mr. STETTINIUS. For the record, Mr. Chairman, may I state that our stockholders as of December 31, 1938, were 219,727.

Mr. NEHEMKIS. Mr. Chairman, the next witness to be called is Mr. Owen D. Young. However, before calling Mr. Young, I respect-

fully request that there be a recess of 5 minutes so that counsel may confer.

(The witness, Mr. Stettinius, was excused.)

Acting Chairman REECE. The committee will stand in recess for 5 minutes.

(Whereupon at 3:40 p. m., a short recess was taken.)

Acting Chairman REECE. The committee will come to order, please, and I will ask the visitors to assume their seats, if you please.

Mr. Young, do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. YOUNG. I do.

## TESTIMONY OF OWEN D. YOUNG, CHAIRMAN OF THE BOARD, GENERAL ELECTRIC CO., NEW YORK CITY

Mr. NEHEMKIS. Will you state your name, please?

Mr. YOUNG. Owen D. Young.

Mr. NEHEMKIS. And your address?

Mr. YOUNG. 570 Lexington Avenue, New York City.

Mr. NEHEMKIS. And will you indicate your connection with the General Electric Co., please?

Mr. YOUNG. I am chairman of the board of the General Electric Co.

Mr. NEHEMKIS. Mr. Chairman, if this meets with the pleasure of the committee I would prefer not to ask any questions of Mr. Young at this time, but let him proceed in his own way to tell one of the unique stories of American industry, how it has grown and how it has financed itself largely from its own internal sources. Mr. Young, will you proceed first?

Acting Chairman REECE. Is it your wish that he be permitted to complete his statement before the members of the committee ask questions and subject himself to questioning later?

Mr. NEHEMKIS. I think that undoubtedly would aid Mr. Young.

Acting Chairman REECE. If it is agreeable to the committee we will follow that procedure then.

Mr. YOUNG. Thank you, Mr. Chairman. May I first of all compliment the committee upon the adoption of the case system in this economic study? I am a great believer in the case system; it has had great success in the law. Pollock said of it that the law will yield up its reason to no man who lacks the patience to study its history. And I suspect that is true of our economic system as well. Now I have first of all endeavored to draw a picture of the formation of the capital of the General Electric Co. and showing its evolution. And I mean by that really a picture, not a blueprint, because I have brought into the statement enough of the story of the surrounding circumstances so as to make figures mean something, as distinguished from mere statistics which, at least speaking from my own experience, are useful only to experts who handle them. This is an effort to draw an over-all picture of the material growth of the General Electric Co. and to show the origin and development of its capital.

The statement does not deal with the adventures and accomplishments of the company in the field of science nor with its experience

in welding together great numbers of human beings of widely diversified capacities and skills into an organized and effective service. Even in the material field the attempt to reflect the story truly and briefly is a daring one. None will understand that better or make more charitable allowance than the group for which this memorandum is prepared. The corporate age of the General Electric Co. is 47 years, but as it sprang from the consolidation of the Edison and Thomson-Houston companies, it is perhaps more correct to say that its present age is 60 years.

SOURCES OF CAPITAL FUNDS—GENERAL ELECTRIC COMPANY

Mr. Young. At the close of its sixtieth year, on December 31, 1938, we find its material resources are carried on its books and I emphasize are carried on its books; I am using the book figures. Its material resources are carried on its books at the net value of $322,739,000.

That is made up of the following: Net working capital, that is, current assets less current liabilities, $155,023,000. Affiliated companies and other investments, such as the International General Electric Co., and associated manufacturing companies, $105,585,000, or a total with the investment companies of $141,528,000.

There is plant equipment of $40,148,000 and other scattered assets of $10,022,000 which, less the reserve, roughly, of $24,000,000, leaves a total capital investment of $322,739,000—$155,023,000 of liquid assets, $141,528,000 of investments, $40,148,000 plant, $10,022,000 of miscellaneous assets, less $24,000,000 of reserve.

This capital was accumulated as follows: From retained earnings, now carried as surplus and general reserve, $142,452,000; from issue of capital stock, $180,287,000. The capital stock was issued for properties, $37,784,000; for cash, $75,379,000; in exchange for bonds of the company, $17,334,000; and as dividends, $49,790,000. That makes the total of $180,287,000 of stock which, with the surplus and general reserve of $142,000,000, accounts for the $322,000,000.

Mr. Henderson. $49,000,000 of stock dividends?

Mr. Young. $49,000,000 of stock dividends.

Representing this stock there is now issued and outstanding 28,845,927 shares, held by 208,580 stockholders. There are no bonds and no preferred stock outstanding. In a word, the two hundred thousand-odd stockholders own the company, not an equity in its assets.

This picture, which is one of affluence in the foreground, might well be misleading unless we can see in the background the rough and dangerous road on which the pioneers set out, with confidence and courage, more than half a century ago. In that great caravan were scientists and inventors to originate, engineers to apply, manufacturers to make, commercial men to sell, people with savings to finance, entrepreneurs and administrators to develop and manage, and a vast army of conscientious and skillful men and women doing their respective jobs with pride in a new art and enthusiasm in the creation of a new industry.

In looking for the beginning of the road it is necessary for us to recall what has been earlier stated, that the progenitors of the General Electric Co. were the Edison General Electric Co. and the Thomson-Houston Electric Co. Let us speak of the latter first, not be-

cause it is the more important of the two, but rather because, in typical American fashion, it arose out of the unknown.

I want to emphasize that feature. Thomson-Houston came out of the unknown. The Edison has a different history.

If we exclude the telegraph, it is fair to say that in 1878 the electrical manufacturing industry was not only nonexistent, but the art as a practical one was unknown. The men who created, financed, and managed the Thomson-Houston Co. were likewise relatively unknown. At that time Edison was well enough known through his inventions so that his initial adventure into the electrical industry was financed by a group of prominent New York capitalists. Not so with the Thomson-Houston group. There were no prior inventions, there were no names of great capitalists, and there was very little money.

FINANCIAL HISTORY OF GENERAL ELECTRIC COMPANY, 1879–1938

Mr. YOUNG. Elihu Thomson and Edwin J. Houston were teachers in the Philadelphia Central High School. They built a dynamo, induction coils, and an arc lamp. Thomson showed the contraption to his friend, Thomas H. McCollin, a commercial photographer in Philadelphia. McCollin asked his cousin, George A. Garrett, to see a demonstration. Thomson, then 26 years old, said, "I can build a better machine than this, one that will run any number of lights you want." Garrett, with enthusiasm, replied, "Let's build a four-lighter. I'll stand the expense." That was America speaking in 1879!

The first installation was in an all-night bakery in Philadelphia and the second one in a brewery. When the brewery caught on fire one of the firemen who was holding the hose said, "What the dickens kind of a light is that? You pour water on her and she won't go out!" That was news too, in America, 60 years ago.

At the same time, Mr. Edison, having incorporated the Edison Co. with the backing of J. P. Morgan, and a capital of $300,000, was receiving considerable well-deserved publicity in the New York press.

Thereupon Frederick H. Churchill, of New Britain, Conn., seeking a new industry for his town, invited Thomson and Houston to settle there. When they accepted Churchill circulated a prospectus in New Britain which, after describing the new company as "a rare opportunity for the upbuilding of a successful business enterprise," ended with the following sentence:

> Such an industry would have within it a capacity for expansion and growth such as is furnished by but few of the business opportunities that today present themselves to the business world.

That was a prospectus written in 1879.

Senator KING. By a prophet.

Mr. YOUNG. By a prophet.

Churchill died in 1881, and the New Britain venture failed; not, however, before one of its installations had been made in an armory in Lynn, Mass. A Lynn newspaper proprietor, Silas A. Barton, became interested in the possibility of a second installation in that city and visited New Britain. Learning that the business was for sale, he suggested the idea of purchase to a group of Lynn shoe manufacturers, among whom was Charles A. Coffin, then under 40 years of age. The upshot was that Coffin and his associates purchased a controlling in-

terest in the company, moved it to Lynn and changed its name to the Thomson-Houston Electric Co.

The members of the Lynn syndicate were successful shoe manufacturers. Initially they were primarily interested in bringing a new industry to their town. That business soon captured the imagination of Charles A. Coffin, and from that time until his retirement in 1922, he was its leader through bad times and good.

It is necessary for us to remember that in 1882—this is important—the problem which faced both the Thomson-Houston Co. and the Edison Co. was not only the origination, development, and manufacture of electrical machines. That was only half their task. Broadly speaking, there were no buyers. New customers had to be created to buy the new machines. This led to the creation of local light and power companies. The sponsors were usually made up of local capitalists and politicians, for it was necessary to have a franchise and some money.

For the most part they were motivated by civic pride and the promotion of local development. The capital of the companies was proverbially inadequate. This forced the manufacturing companies to accept in part payment for the new equipment the bonds and stocks of the new customer companies. The Edison Co., through a somewhat different technic, that of issuing exclusive licenses against securities of local operating companies—that is, licenses to operate in a community under the patents—ultimately faced the same necessity of accepting additional securities in part payment for its products.

Leaving now the Thomson-Houston Co. at Lynn, with Charles A. Coffin and his associates in charge, let us look at the development of the Edison Co.

In 1879, while Thomson, the high-school teacher, was tinkering with his arc-light system, Edison, still under 35, had already established a modest position as an inventor. One of his earlier inventions, relating to the electric telegraph, had been the subject of patent litigation. Grosvenor P. Lowrey, a prominent New York lawyer, had defended Edison's interests and as a result became one of his most faithful and staunch supporters. Lowrey, having confidence in Edison's ability and knowing of his interest in developing an incandescent lamp, approached Mr. J. P. Morgan and other influential financiers of his acquaintance. The result was the organization of the Edison Electric Light Co. The capital stock amounted to $300,000, of which $250,000 was issued in payment for equipment and the remaining $50,000 was subscribed for, with 80 percent paid in in cash. That, too, was America speaking, in 1878.

Edison's immediate problem was the discovery of some material for a filament that would stand incandescence for a considerable period without disintegration.

On October 21, 1879, his experiments were crowned with success at Menlo Park, when his carbonized cotton filament burned continuously for 40 hours. Truly a historic demonstration!

To successfully operate an incandescent lighting system, however, it was necessary for Edison, in addition to the lamp, to develop a completely new set of mechanisms to generate and transmit the electric current. This was the kind of staggering task which only a great genius could master. It soon made Edison's facilities at Menlo

Park inadequate. In 1880, therefore, he organized the Edison Machine Works in New York City to manufacture generators, and the Edison Lamp Works near Newark, N. J., to manufacture lamps.

In 1886, Edison decided to move the Edison Machine Works out of the metropolitan area. He became interested in an unused plant at Schenectady, and made an offer which was refused by the owners.

An impasse threatened. But civic pride burned bright in the breasts of some, at least, of Schenectady's citizens. They grasped what it would mean to the town to have a plant of the famous Edison. A meeting was called, and eventually by local subscription a fund was raised which made up the difference between "bid" and "asked" prices.

So it was that the Mohawk Valley became the center for manufacturing the generating equipment required by the growing number of Edison licensee operating companies.

These were stirring times. The formative period of electric development was approaching its height. The Edison system, as an organization for manufacturing, licensing and selling electric-light systems, was beginning to sprawl. Greater integration seemed desirable, and in 1889 a merger of the individual Edison enterprises was consummated through the formation of the Edison General Electric Co.

At the same time that the Edison Machine Works was established at Schenectady and the Thomson-Houston Co. was getting under way at Lynn, another idea was germinating in the minds of several competent and creative engineers, notable among whom were Charles J. Van Depoele and Frank J. Sprague. In 1887 and 1888 these two, working independently, had demonstrated the practicability of using electricity to propel streetcars.

This opened almost at once a vast new field for the electrical manufacturers. Larger power units had to be made, longer transmission was necessary, and cars needed to be equipped with motors. The old horse railways had to be transformed, franchises modified or enlarged, and additional capital provided. As in the lighting field, the problem of financing was difficult but imperative. It invited the manufacturing companies to extend their limited credit further in order to enlarge their business.

The rapidity of the development of the Edison and Thomson-Houston Cos. is shown in the following statement of their condition in 1891: The Edison Co. had a capitalization of fifteen million at that time; the Thomson-Houston of ten. The Edison Co. had a gross business of ten million nine hundred and the Thomson-Houston of ten million three hundred and four, almost exactly the same. The profits of Edison were two million ninety-eight; the profits of the Thomson-Houston were two million seven. The number of employees of Edison were six thousand; the number of employees of Thomson-Houston were four thousand. The factory space of Edison was four hundred thousand square feet; the factory space of Thomson-Houston three hundred and forty. The customers were from three to four thousand of each company, probably duplicated. The central stations, Edison had 375—that is, central lighting stations; Thomson-Houston had 870. Street railways equipped, Edison, 180; Thomson-Houston, 204. Street railway cars, Edison had 2,230; Thomson-Houston, 2,760.

Now I want to make this point. The Thomson-Houston Co., springing from the unknown, is catching up with the great Edison Co. and in points surpassing it. With two-thirds of the capital and two-thirds of the number of employees, Thomson-Houston is equaling Edison in gross business and exceeding it in profits. It has a larger number of central lighting stations, more street railways, and more streetcars equipped. The Edison Co. in its annual report for that year, and this is significant, said that it—

could have done a much larger business if it had been willing to accept securities in payment for orders; but * * * a strict rule was adopted of declining all such and doing business exclusively on a cash or short credit basis.

The Thomson-Houston Co. had been rediscounting its customers' notes with its banks and pledging operating-company securities as collateral for its loans. Finally the banks became hesitant, particularly in accepting securities as distinguished from customers' notes, and in 1890 Charles A. Coffin organized the United Electric Securities Co. The purpose was to transfer to it large blocks of securities of utility operating companies and to sell to the public the debentures or the preferred stock of the holding company and so obtain longer-term money to bolster the waning treasury of Thomson-Houston. The Thomson-Houston Co. kept the common stock of the United Electric.

The public, however, was hesitant, too. It soon became apparent that debentures could not be sold in sufficient quantities to finance the rapidly increasing amount of utility securities which the manufacturing company was obliged to take. The Edison Co. was drawing in its horns as a matter of business policy. The Thomson-Houston Co. was doing the same thing from necessity.

Perhaps, at this point, we should remind ourselves that there were several other companies operating at this time in the electrical manufacturing field; notable among them was the Westinghouse Co. They were all more or less in the same condition with the same problems and the same difficulties.

Under such circumstances, what could be more natural than to combine the Edison and Thomson-Houston companies, giving the consolidated concern the business leadership of Charles A. Coffin, the inventive genius of Edison and Thomson, eliminating patent conflicts which were threatening both concerns, and bringing together the financial interests in Boston which had supported Thomson-Houston with the great prestige of Mr. Morgan and his associates in New York?

So it was that the General Electric Co. was incorporated on April 15, 1892, and began active business on the first day of June in that year.

Senator KING. Is that '92?

Mr. YOUNG. In '92. Charles A. Coffin was made president and the contest began for the market of electrical manufactures between the Westinghouse Co., led by George Westinghouse, the brilliant and imaginative engineer, and Charles A. Coffin, the daring and equally imaginative man of business.

The first board of directors of the General Electric Co. reflected its distinguished and substantial backing: F. Lothrop Ames, Charles A. Coffin, T. Jefferson Coolidge, Jr., Henry L. Higginson, all of

Boston; Thomas A. Edison, Charles H. Coster, Frank S. Hastings, Gen. Eugene Griffin, Darius Ogden Mills, H. McK. Twombley, and J. Pierpont Morgan, of New York.

The directors made their first report to stockholders on April 11, 1893, covering the 8 months from June 1, '92, to January 31, '93. At that time it stated its capital investment to be $45,000,000, against which it had issued $10,000,000 of bonds, $4,000,000 of preferred stock and $30,000,000 of common stock, and a surplus of $1,000,000. It had 3,272 stockholders in 1892. There were then 1,277 central station lighting companies using Edison and Thomson-Houston apparatus, supplying even at that early date 2,500,000 incandescent and 110,000 arc lamps. Of the lighting companies, the report says—now this is the annual report of the directors and I quote:

> The growth of these companies has been phenomenal, and it is very satisfactory to note that those which have been established longest are making the most rapid increase in the size of plant and volume of business.

Further quoting from the directors to the stockholders of that year:

> During the past year there has been a very marked appreciation in the value of the securities of local companies, especially in the larger cities, testifying to the increased confidence of investors in such properties.

Now, I quote that for the reason that the panic of 1893 is just around the corner, and I want to go on with the story.

It is interesting to note, at this time, the growth in 2 years of the electrification of street railways. On February 1, 1891, there were 151 roads operating electrically or under contract; on the same date in 1893 there were 435. On February 1, 1891, there were 1,578 electric cars; on the same date in 1893 there were 8,386—2 years. On February 1, 1891, there were 1,252 miles of electric railway in operation; at the same date in 1893 there were 4,927 miles. See that jump in those 2 years.

In its first 8 months of its existence the company did $11,000,000 of business, at a profit of $3,000,000, of which it distributed in dividends $1,900,000 and carried to surplus $1,000,000. I am giving the round figures.

The prestige of the company enabled it to sell $454,000 par value of the preferred stock of the United Electric Securities Co. for a price in excess of $408,000. It was still necessary for the company, however, to endorse customers' notes because such notes—this is the General Electric Co. now in the first year—because such notes unendorsed were not acceptable to the banks. They amounted on January 31, 1893, to $3,787,000. In addition, it had outstanding $10,000,000 of 5-percent bonds.

In such a condition the new General Electric Co. faced the panic of 1893. It will be interesting to see what happened during the next few years.

You will remember that glowing report of January 31, 1893—now, I am making some quotations from the report of the directors as of that time because they are a contemporary statement and it seems to me that they throw great light on what happens in a serious depression, especially to a new concern.

Now, I will read what they say in this report of January 31, 1894, which covers the 12 months preceding:

> It is needless to say—

the directors state—

that the past year has been a most trying one to all corporations. It has been especially so to companies like your own, dealing with local enterprises situated in all parts of the United States, and largely dependent on normal conditions for their success and development. During the summer of 1893 even old and strong customers were obliged to ask for leniency in paying their accounts and notes. Under these circumstances your company found itself with its own obligations to meet, but unable at that time to collect the money with which to meet them. The difficulties thus presented were carefully considered by your board and were met by selling to a syndicate certain of the company's assets, consisting of claims against, and stocks and bonds of, local lighting and railway companies, the same being of a class of which your company sold several million dollars in 1892, and which your directors, in their last report, said they intended to continue to sell from time to time as heretofore through the ordinary channels. The channels through which your company usually made such sales having become unavailable owing to the panic, your directors adopted a plan used on several occasions in the earlier days of the Thomson-Houston Co., and made the sale of assets above described to a syndicate which paid over $4,000,000 in cash.

Now I pause to emphasize that because I want to refer to it later. It is one of the beginnings of a new era in public utilities and in the electrical industry.

Although the transaction involved a large shrinkage from book valuations, the sale was at a price high under the conditions then prevailing. Few of the securities sold were listed on any exchange or commonly dealt in, and it was not possible to effect a ready sale except in bulk to a syndicate. These assets were placed in a trust known as "The Street Railway and Illuminating Properties." * * *

The depreciation in value of the assets thus sold applies equally to those still on hand. Holders of stocks and bonds of almost every kind find them quoted today much lower than a year ago, and this company, as a holder of electrical stocks and bonds, is no exception to the rule. In fact the shrinkage in values of electrical securities has been greater than in most others. The last year has been characterized by shrinkage in every direction, and your company has suffered severely from it.

This is the second annual report.

The officers of the company were making a titanic effort in their race with receivership. By January 31, 1894, the debt had been reduced by $6,750,000. The cash had dwindled from $3,871,000 on January 31, 1893, to $591,000 on January 31, 1894. The directors stated:

While the liquidation of the debt has been going on, the company has also readjusted its basis for sales, either to cash or to short credits to desirable customers. In view of the extreme depression and the uncertainty as to the early future, your directors have not felt justified in any other course than that of adhering strictly to sales on this basis. It is believed that your company has lost little legitimate business in consequence of its curtailment of credit to customers. It intends to confine its business to this basis, and to accept smaller profits.

The capital investment of the company dropped in that year from $45,000,000 to $32,000,000 and its surplus from $1,000,000 in the black to $12,000,000 in the red. Such was the first impact of the panic on the capital structure of the new concern.

It is interesting to note that the red figures in the surplus continued at substantially the same figure until 1898, when it was wiped out by a reduction of capital stock of $14,000,000, 4 years later. In January 1899 the surplus was in the black to the extent of $156,000 and it has remained in black continuously ever since. The directors further said in their report of January 31, 1894:

Your directors do not believe that it will be possible for some time to come to do as large a business as was done by the company prior to the panic,

although a gradual improvement has been apparent during the last 2 months. The street-railway business, which to a considerable extent was formerly done through syndicates and promoters, many of whom have become embarrassed, promises to be smaller than during the previous year. Arc-lighting business is also reduced, largely because of the inability of local companies to secure capital with which to extend their business for the purpose of carrying out municipal contracts. The business of the company, with respect to incandescent lighting, which is to a great degree performed by strong and conservatively managed local companies, is in a more healthy condition, and has not suffered so severely.

In the third annual report, as of January 31, 1895, the directors, in order to cover additional losses, "arbitrarily charged $2,000,000"—set it aside, really, as a reserve—"to profit and loss account."

During that year, however, they were busy dealing masterfully with their debt. Of it they say:

In the last report your directors expressed the opinion that they could, out of the then-unliquidated assets, pay off the balance of your floating debt and also provide all necessary working capital. These expectations have been realized, and in addition thereto the company has purchased and canceled $1,250,000 of its own debentures at an average cost of less than 89 percent.

In the fourth report as of January 31, 1896, the directors make the following statement:

In their last report your directors referred at some length to the liquidation of old assets, and stated that the sum of $2,000,000 had been charged to profit and loss for the purpose of providing for all shrinkages which could then be anticipated in the liquidation of old matters.

Much has been accomplished in the year just closed in liquidating old and slow assets, and the condition of the assets of like character which still remain on the books of the company is such as to enable your officers to more definitely fix their proper values. Information regarding these matters will be found in the report of the second vice president, to which particular attention is invited. There have been charged against the $2,000,000 item above referred to the sums of $530,152.16, representing the shrinkages which have accrued from the liquidation so far as completed, leaving $1,469,847.84 still standing to provide for possible shrinkages in the future. It is the belief of your directors that this amount is sufficient to cover all the purposes for which the above sum of $2,000,000 was originally set apart.

The purge continued, but signs of health were reappearing.

The business secured by your company for the fiscal year just closed was less than 10 percent greater in value of sales than for the year previous. The actual increase in output of factories, based upon capacity of machines and number of articles produced, is more than 30 percent greater than for the previous year. While the selling prices as thus shown have been materially reduced, there has been a corresponding curtailment in manufacturing and other expenses and lowering in costs, largely due to improved designs and methods of manufacture.

The gross business was still running around $12,000,000. Even in 1897 the business had not increased. In that year, however, the directors referred again to the $2,000,000 that had been set aside in 1894 to provide for shrinkage in assets.

The business of your company has suffered during the past year, in common with that of all manufacturing enterprises, from the disturbed financial and political conditions which have prevailed during a considerable portion of the time. These conditions have curtailed the amount of capital ordinarily available for the establishment and extension of power and lighting plants, and have enforced the practice of great economy on the part of its customers. As a result, the shrinkage in orders received by your company was very marked, especially during the latter half of the year. This shrinkage is not shown by a material falling off in shipments, as given in the profit-and-loss statement on page 17 of this report, but the amount of work in progress and unfilled orders on hand is considerably less than a year ago.

With a return to normal commercial conditions, a corresponding revival in the business of your company may be expected. The volume of business secured by it for the first 3 months of the current year is slightly in excess of that for the same period in either of the 3 previous years.

On January 31, 1895, the sum of $2,000,000 was set aside, as shown in the annual report of that year, to provide for shrinkage in assets, the exact values of which it was then extremely difficult to fix. During the past year your directors have been able to value these items with substantial accuracy, and the $2,000,000 fund has been found sufficient and has been used to provide for the proper adjustment of all accounts and other assets for which it was created.

In opening the sixth report as of January 31, 1898, the president said:

The past year (1897) witnessed a revival in business which increased rapidly in activity and volume during its latter months.

He was there referring to orders taken rather than sales billed. The latter remained at substantially $12,000,000. The clouds were lifting—the sun was beginning to shine. For 5 years the depression had continued. The struggle for survival of the General Electric Co. was over at last.

A reduction of 40 percent in the share capital of the company was made in 1898, bringing the common stock from $30,460,000 to $18,276,000 and the preferred stock from $4,252,000 to $2,551,200.

In 1898 the company was clearing the way for dividends. The surplus went into the black, as heretofore stated, to $156,000. The business jumped to $15,500,000, having stood at 12 millions for several years. In the report to stockholders for that year there appears the following significant statement:

The company has no notes payable, nor is there under discount any paper bearing the company's endorsement or guaranty.

It has not borrowed any money, nor has the company's credit been used during the year either by issuing notes, endorsing customers' paper for discount, or lending its name in any way; but by adhering to the policy of the previous 4 years and maintaining sales on a basis of cash or short credit to desirable customers, all purchases have been paid for in cash.

Now, that was the result of the purge of 1893. I think it has some illumination for us.

By 1899 the volume of business had grown to more than $22,000,000, and the market was beginning to take securities which the company was selling at prices substantially in excess of their book value after the drastic write-downs of the depression years. The company was off to a new start and was to participate profitably in the truly amazing developments of the next 30 years.

By the turn of the century, then, the capital investment of the company, as shown by the report of January 31, 1901, was $32,114,681—in contrast with the $46,000,000 with which it had started 8 years before—and was represented by $1,534,000 in bonds, $2,551,200 of preferred stock, $21,400,300 of common stock, and $6,629,181 of surplus. The sales billed for that year were approximately $28,000,000.

The 2 succeeding years were very profitable ones, especially due to the liquidation of securities above the then book values, and the surplus had risen to $15,000,000. All the preferred stock and about $1,000,000 of bonds were converted into common. About $2,000,000 of new bonds were issued. The company restored the stock reduction which had been made in 1898, which brought its capital stock to approximately $42,000,000.

During the next 4 years it was able to find new capital with which to carry on its rapidly increasing business by issuing its common shares to stockholders for cash at par to the extent of approximately $20,000,000.

So the company faced the critical year of 1907 with a capital investment of $81,000,000, represented by $2,000,000 of bonds, $64,000,000 of common stock, and $15,000,000 of surplus, the preferred having been converted into common. Its volume of business had grown to approximately $60,000,000.

As a result of the panic of 1907, the directors said in their report of January 31, 1908:

> Late in the year there was a sudden and severe shrinkage in the value of all merchandise and materials used by your company, notably copper. All said materials, whether raw, manufactured, or in process, which were on hand January 31, 1908, were inventoried at the lower prices then prevailing. The book value of such inventories was thereby reduced by about $2,000,000.

The stockholders having subscribed for only $1,500,000 of common stock in 1907, the company issued $13,000,000 of 5 percent 10-year debenture bonds convertible into stock at par on and after June 1, 1911. The financial pressures had forced the use of convertible debentures in 1907 to maintain an adequate capital structure, but, fortunately, by this time the resources and credit of the company enabled it to withstand the shock of the short depression of 1907.

During the year 1911, $12,000,000 of the bonds were converted into common, bringing the common capital to $77,000,000. In 1912 the company declared a stock dividend of 30 percent out of surplus for the purpose, as stated in the report, "of recouping the stockholders in part for dividends passed or reduced during the years 1893 to 1902." During that same year the company authorized an issue of $60,000,000 of 40-year debentures to be sold from time to time as required, and they sold, in 1912, $10,000,000 of such bonds bearing a rate of 5 percent per annum.

So, at the end of 1912, the capital investment stood at $125,000,000 with bonds of $12,000,000 surplus of $12,000,000 and common stock of $101,000,000.

During the war years, 1917, 1918, and 1919, there were substantial temporary borrowings, increases of capital and surplus, the detail of which throws little light on the normal and progressive capital development of the company.

The year 1920 brought another crisis. The orders for that year were $318,000,000, more than 80 millions in excess of the previous year. Inventories and receivables had increased, so when the sudden and severe decline in market prices came in 1920 the company wrote off of inventory some $18,000,000. During the year it made short-term loans of $45,000,000, but between January and April of the succeeding year, $42,000,000 of such loans had been repaid. The common capital, however, was increased in excess of $50,000,000 during the 2 years 1920 and 1921 ($40,000,000 being for cash and property and the balance as stock dividends), bringing the total capital investment up to $298,000,000 consisting of $176,000,000 of common stock—but it shows what a shock there was in 1920 and how even then it had to go to the banks for a loan of $45,000,000—$38,000,000 of bonds and $84,000,000 of surplus and general reserve.

In 1922 a special stock was created having no preference over the common except a limited dividend rate of 6 percent. For the next several years this special stock was issued as stock dividends, and no further dividends in common stock were issued. The last dividend paid in special stock was in 1926, and the total amount issued was $43,000,000.

Senator KING. That special stock was sold, I suppose, on the market?

Mr. YOUNG. No; that was issued as dividends. They conserved their cash.

Senator KING. Took the place of dividends?

Mr. YOUNG. Took the place of dividends and they declared some cash dividend and the balance in special stock.

In 1923 the company called and paid off $15,000,000 of its bonds. In 1925 it called $15,000,000 more, and it had acquired enough in the market in the meantime so as to reduce its funded debt to $2,000,000. In 1935 the company called this remaining $2,000,000 of bonds and retired all of its $43,000,000 of special stock.

The company had in the year 1935 $180,000,000 of common stock, $136,000,000 of surplus and general reserve, making a total capital investment of $316,000,000.

From the above brief sketch of capital growth, I have only drawn attention to the major changes and the problems which faced the management. The résumé of the source of capital was shown at the beginning of this statement.

When one looks at the growth of the volume of sales of the General Electric Co. he finds it remained stationary at $12,000,000 for the first 5 years of its life, but at the turn of the century it reached more than $25,000,000. At 1910 it was $70,000,000; at 1920 it was $275,000,000; and at 1929 it reached its high point of $415,000,000. In 1933 it dropped to $136,000,000, in 1937 it recovered to $350,000,000 and in 1938 it was $260,000,000. The enormous growth in the two decades, where it jumped from 70 millions to 415 millions in those two decades after 1910, needs to be accounted for by anyone who wishes to understand the background of the capitalization of the electrical industry.

I want to tell you a story which involves the capitalization of utilities.

I wish now to go back to the trying year of 1893, when the General Electric Co. transferred reams of utility securities to the Street Railway and Illuminating Properties in order to raise $4,000,000 in cash, and thereby saved itself from bankruptcy. The Street Railway and Illuminating pool, as it was then called, was strictly a liquidating concern. It had no intention of entering the utility business as such. It had no particular interest in or knowledge of management of such properties. In order to make its securities marketable, it was obliged in many instances, if not indeed in most, to reorganize the operating units through receivership by reducing the prior lien bonds and preferred stocks. It thereby threw larger equities in the new common. The new bonds and preferred were sold to the public to the extent and at such prices as the market would take them. The new common shares remaining in the liquidating pool were, for the most part, not marketable through then established channels. Something new needed to happen and it did.

For the 10 years preceding the turn of the century, the glamour of the new electrical art had attracted many of the most brilliant young men of the time into the field of electrical engineering. That was prior to 1900. Most of them took a post graduate course with the manufacturing companies known as the Test. Thereafter, some of them remained in manufacturing, but many others went out to the lighting and railway companies. A few of them started in business on their own account, first as expert advisers to existing companies, and later as experts in management. It was to this last group that liquidators like the Illuminating pool went for the purpose of creating, through expert management and engineering skill, values in common shares. The usual procedure was to turn over to such management groups a small block of the common shares at a rather nominal figure and install the engineering organization as manager. To spur the management, it was usually customary to grant options on additional blocks to be taken up in specified periods at increasing prices.

So the young engineers came into positions of management and later control of operating public utilities. They replaced the nominees of the old politician and the local capitalist who, with little knowledge, had endeavored to operate in the early days and whose influence was much diminished and in many cases entirely eliminated by the purge of the panic of 1893.

So we find at the beginning of the twentieth century groups of highly trained young engineers, able and ambitious to develop utilities, with an opportunity open to them not only to render great service to the community, but to acquire a competence for themselves. At the same time in the manufacturing organizations their contemporaries were coming into positions of influence. For the first time the manufacturers, and this is important, had competent and appreciative buyers, and conversely these young managers of utilities were stimulating and urging the electrical producers to make more efficient and more economical equipment. They wanted to reflect values in those common shares as rapidly as possible.

Here then were producers and users venturing into a new field unafraid of new things, all young men, by the way. The rate of technical advance was tremendous. Human brains alive and at work everywhere were enlarging the field of electrical service and materially reducing the costs. Values began to be reflected in these common stocks and then the public itself began to buy them, in limited quantities to be sure, but nevertheless a market was emerging. Soon the old liquidating concerns had finished their task, usually with great profit to the stockholders who had dared to invest their money in the dark days of the panic.

But when the utility common shares became valuable the new managers did not wish to sell them, although they could do so at a profit, because they might lose control of the companies which they had really made. As energetic Americans, however, they were ambitious to extend their management operations and achieve the added economies that such extension promised.

To meet this situation the utility holding company was invented, which enabled these ambitious young managers not so much to sell their original common shares at a profit as to obtain some funds against them through the issue of holding company securities, and

thereby enable them to enlarge their operations in the communities which they served or to acquire an interest in other properties and so extend their management program. Then, too, the holding company was a better medium for the investor. Instead of taking common shares in an individual operating company, he was able to invest in a diversified group of shares, and if he took preferred stock of the holding company he would gain some security through the equity margin represented by the common.

This, broadly, is the story of utility holding companies before the war. If holding companies have, in these later days, fallen under criticism, we must ever remember the service which they performed in the rapid expansion of electrical services to the public. As an effective instrument for providing capital it made possible the rapid development and use of the steam turbine, not only in great centers of population but in power plants serving large numbers of rural communities through networks of transmission systems. In no other way could the small communities have received such high character of service at such low cost.

This mechanism was developing during the period from 1900 to 1910, during which time the business of the General Electric Co. trebled. But even so, the full effect was not felt until the next 2 decades when the business of the company rose from $70,000,000 to more than $400,000,000. This tremendous increase was not experienced alone by the General Electric Co., but by the entire electrical manufacturing industry. Indeed, and this is significant, General Electric's percentage of the industry business has remained through the years at between 20 and 25 percent.

There is another aspect, however, of this cooperation between the engineers of the utilities and the engineers of the electrical manufacturers. As I have suggested before, it was difficult for the manufacturers to keep pace with the demands of their own customers for new things. To do so, the General Electric Co. in 1901 established a research laboratory and called to it men of great vision and ability to explore the unknown. Those men had no specified jobs. To improve what we had was the work of the engineers. The research men were to move out into an unknown land, and they were supported on their adventure in the hope that they would bring back among their discovered treasures a few at least that would be of practical advantage to the electrical industry. One might well have criticized in those days a corporate management which gambled stockholders' money on such remote chances. Yet I suppose no venture has been more profitable to the General Electric Co., to investors and operators in utilities and to the public served by them than these research laboratories.

The drive for economy and efficiency in the production of electrical power so urgently demanded by the utility engineers was supported by the work of the research laboratories and the engineers of the manufacturers. Indeed, the profits of the utility operating companies became so large as not only to attract investors as the result of that cooperation, but to precipitate constantly calls from customers for reduced rates. In the beginning, municipalities endeavored to regulate rates, but the utility rapidly outgrew the municipality. Then State commissions were charged with that responsibility, but the utilities in some cases overran State boundaries

and so the Federal Government found its justification for a limited entry into the field of utility regulation.

I should like to say in passing that in the political debates incident to the entrance of the Federal Government into the field of regulation, there has been criticism of the incompetence not only of local regulating bodies, but frequently of State commissions. I should like to take the opportunity of saying here that by and large I think those criticisms are unfair and unwarranted. The fact is that the research laboratories and the engineers in the electrical industry made such rapid progress in efficiencies and economies that regulating bodies were unable to keep up with them. As a consequence, by the time the rather cumbersome machinery of regulation established a rate the efficiencies introduced meanwhile frequently kept the profits on the new rate as high as they were on the old ones. This fact led customers to criticize the regulating boards. Such criticism to my mind was unjustifiable and, indeed, on the whole I think the fact that the utility companies were highly prosperous during the early days was of great public advantage. Their earnings were largely turned back into their properties and so supplemented the capital which they were able to get from the public and which in amount would, I think, have been inadequate to have provided for the rapid expansion of facilities which took place between the years 1910 and 1930.

I have spoken of the part which the engineer managers of the electrical utility companies played in the development of the business, and consequently the capital formation of the General Electric Co. To complete the picture it is now necessary to speak of the major adventures of the General Electric Co., itself, in the utility field.

I have already told how essential it was in the earlier days for the company to accept public utility securities in part payment for its apparatus and how large blocks of such securities were sold in the panic of 1893 to save the company's life. Attention has also been called that prior to the organization of the General Electric Co., Charles A. Coffin had organized the United Electric Securities Co. of Boston as a medium through which, by the issue of its debentures and preferred stock, he could find an indirect market for the securities of operating companies which he wished to take. The United Electric Securities Co. was continued in existence as a subsidiary of the General Electric Co. and was used from time to time for the purpose of liquidating in part the utility securities of the General Electric. Its headquarters were in Boston and its securities were largely sold in that market.

In 1904 the General Electric Co. caused to be organized the Electrical Securities Corporation in New York for the purpose of doing a similar business in New York and thereby widening the opportunity of the General Electric Co. to aid in the financing of utilities. The common stock of this company, too, was held by the General Electric Co. Many years later, to save overhead and simplify the organization, the United Electric Securities Co. of Boston was liquidated by a transfer of its assets in the domestic field to the Electrical Securities Corporation, and in the foreign field to the International General Electric Co., which is the subsidiary of the General Electric Co. doing its foreign business, except in Canada. It is unnecessary to speak of the United Electric Securities Co.

further than to say that it served a useful purpose for more than 40 years with satisfactory returns to its investors and the General Electric Co. and that it had rendered a substantial service to the financing of utilities during that period when the market was not ready to supply the capital demands.

The Electrical Securities Corporation still exists, but it no longer issues its securities to the public, all of the outstanding ones having been called and retired. It is owned entirely by the General Electric Co. and it developed through many years a highly specialized management and it is today, practically speaking, only an incorporated securities department of the General Electric Co. It, too, as a financing mechanism to protect utility credits, had served a useful purpose.

These two companies were investment companies. They were not in any sense management companies although at infrequent times they were compelled as investors to participate as directors, and occasionally as managers. Such activities, however, were purely incidental.

I shall now speak of another adventure of the General Electric Co. into the utility field which did not originally contemplate but which ultimately eventuated in management and in a "holding company." I speak of the Electric Bond & Share Co. It was natural that the two investment companies above referred to should take the securities of the larger public utility operating companies. It was, of course, the ambition of the engineer managers, of whom I have spoken, to operate initially in the larger communities. Even after the turn of the century, the utilities operating in the smaller communities were finding it difficult to get adequate capital and particularly equity capital. Prior lien securities, such as bonds and preferred stocks of the smaller companies could only be sold on a high interest basis and when adequate capital for common stock was not available, the senior securities often could not be sold at all.

Under these circumstances, the General Electric Co., again under the leadership of Charles A. Coffin, conceived the idea in 1905 of organizing the Electric Bond & Share Co. for the purpose of aiding the smaller utilities in raising junior capital and in selling their senior securities at a better price. The development of the utility business in serving many communities from centralized power plants through the use of long transmission lines practically forced the Electric Bond & Share Co., through the normal evolution of its business, into a large holding and management company. Meantime, other operating units, through holding companies and otherwise, were extending their lines to serve not only small cities, but small villages and hamlets; indeed, they were reaching out for the farms. As these operating units became larger and the general trend of the utility business was profitable, the Bond & Share Co. was able to handle its own financing and to provide its own capital requirements without help from the General Electric Co. Accordingly, on December 30, 1924, the General Electric Co. decided to divest itself of ownership of the Electric Bond & Share Co. by distributing the common stock of that company to its own stockholders as a dividend. Such stock at the time of its distribution was valued on the books of the General Electric Co. at $25,000,000. Of course, the market value at that time was very much larger—$125,000,000.

Mr. HENDERSON. At the time it was distributed?

Mr. Young. Yes; but we were carrying it on our books at 25 million.

Mr. Henderson. Did you have any idea what the value would be today?

Mr. Young. We didn't know anything about it.

The Chairman. But you distributed it as 25 million.

Mr. Young. And charged 25 million to surplus.

So much for the utility business.

In 1919, after the close of the Great War, the General Electric Co., at the suggestion of the President of the United States, undertook to secure the cooperation of all American concerns interested in wireless in the creation of a unified organization to develop and protect the communication interests of the United States throughout the world. The story of radio and its rapid development need not be repeated here. It is only referred to because the Radio Corporation of America was organized for the above purposes in 1919 and as the result of a decree of the Federal court, the common stock of the Radio Corporation which the General Electric Co. held was distributed in 1933 to the stockholders of the General Electric Co. as a dividend. The value of that stock as carried on the books of the General Electric Co. was approximately $26,500,000 and that amount was deducted from surplus in that year.

Mr. Henderson. What was the market value?

Mr. Young. The market value was just about that at the time of the declaration.

Mr. Henderson. That was in 1933?

Mr. Young. That was in 1933.

While speaking of dividends, perhaps I should say at this point that in addition to the Electric Bond & Share and the Radio Corporation dividends of $51,000,000, the General Electric Co. has, during the 48 years of its life, paid cash dividends to its stockholders of $655,662,000 and an additional $47.000,000 to retire its special stock issued as stock dividends. During this same period the company has sold approximately $7,000,000,000 worth of electrical products and it has paid to its employees in wages and salaries something over $2,700,000,000.

Now we are back to the point where I started. The enterprise has been profitable, but it took the vision and daring of genius to create it. It took confidence, persistence, and courage to develop it and carry it through its earlier days. It remains only for us at this time and for those who come after us to so administer this great concern that it may continue to render a service in the future comparable to the past.

That is the story, Mr. Chairman and gentlemen, of the evolution of the capital of the General Electric Co. and a general picture of its over-all business.

I will make, if the committee wishes, some observations, my own observations now, of the lessons which I think may be fairly drawn from the statement which I have just made.

The Chairman. The committee will be very happy to receive them, Mr. Young.

TAX POLICY AND CAPITAL ACCUMULATION—GENERAL ELECTRIC COMPANY

Mr. YOUNG. First, as to taxes, the General Electric Co. has built its capital largely out of undistributed profits. Of its $322,000,000 of capital investment, $142,000,000 represents retained earnings in the form of surplus and general reserve. In addition, $50,000,000 of its capital stock was retained earnings evidenced by stock dividends. In a word, $192,000,000 of its $322,000,000 of capital came from earnings; $92,000,000 from cash investment, either in the form of direct stock subscriptions or in initial purchase of bonds later converted into stock. The remaining $38,000,000 represents acquired properties which I think we may assume had a money value equal to the amount of the stock issued against them.

The important point, then, is that in a new industry, where it is always difficult to obtain adventure capital and equity capital, it is desirable, if not indeed necessary, to provide that earnings may be retained for the development and expansion of the business. That is not only in the public interest from the standpoint of the development of the industry, with its increased employment and contributions to the national wealth, but even from the standpoint of the Government budget over a period of years the tax returns will be increased and not diminished. That is my judgment. It seems to me that the history of the General Electric Co. shows that.

While I sympathize entirely with the view that the retention of profits in the corporate treasury ought not to be permitted in those cases where it is merely a ruse to relieve large stockholders from personal taxes, still, on the other hand, the universal application of the undistributed profits tax works great hardship on smaller concerns which find it difficult to get capital and especially on new enterprises in which investors are hesitant to embark their savings. Some way should be found by which the undistributed profits tax might be conserved as a weapon against tax evasion on the one side, but relinquished for the purpose of legitimate capital needs of the companies having earnings to conserve, on the other.

Second, again as to taxes: It seems to me clear that the General Electric Co. could not have survived the panic of 1893 and probably could not have obtained such large subscriptions to its capital stock after the turn of the century if a capital gains tax of the kind we now have had been in operation. Without such subscription it seems entirely probable that the General Electric Co. would not have been able to face the temporary panic of 1907. I am strongly inclined to think that the capital gains tax is a wholly undesirable item in a program of national taxation. It has probably received its chief support because of the desire to reach the speculator, especially over the stock exchanges. The impact of the tax, however, has become a serious deterrent to supplying adventure and equity capital in the country. The speculation over the stock exchange is only a flea bite in our national economy and one might say that insofar as the capital gains tax is an instrument to reach the profits so made, it is a weapon which not only kills the mosquito of speculation but the goose that lays the golden egg for the development and expansion of industry.

In any event, now that the stock exchange is under adequate control, it may well be considered whether the capital gains tax need be retained for the purpose for which it was largely originated.

By and large, I may say on taxation—and this is only a personal observation—I think I am in very complete accord with the recommendations of the preliminary report of the Brookings Institution on tax modifications. I volunteer so much, Mr. Chairman.

Now, as a general observation, it seems to me fair to say that the history of the General Electric Co. shows what a tremendous factor individual leadership is in the development of new industry and in any organization within that industry. Truly, it may be said that the General Electric Co. was and is only the lengthened shadow of Edison and Thomson in the field of science, and of Charles A. Coffin in the field of business. It was their energy and capacity, functioning largely without governmental restraint, that enabled them to build in half a century one of the most spectacular industries of the world.

I am not now protesting against certain Government regulations and restraints in this age, but I am saying that it should be exercised with the greatest discrimination and in such a manner as to conserve to the utmost the advantages of free and competent leadership.

One also can't look at the history of the General Electric Co. and of the electrical industry without realizing the tremendous benefit which came from the terrific and painful purge of the panic of 1893. Great benefit came. There was no artificial effort then to alleviate the impact of that depression. The result was that both the utilities and the manufacturing industries came out with a sounder capital structure, a more competent and aggressive leadership than could possibly have existed under the old regime. It took from 5 to 7 years to recover from that panic, but when the recovery came the economic structure of the electrical industry at least had been cleared up so that it was ready for effective action, as the next three decades show.

This raises the question whether artificial alleviation of the impact of depressions through Government aid in the financial field are helpful to a nation's economy. Please do not misunderstand me. I am not here speaking of the relief of individuals who may need aid for a period. I am speaking of the effort to conserve financial structures, as distinguished from relief of individuals, and sometimes to bolster up organizations and concerns which are not effective economic agencies from the standpoint of the national economy. It may be much better to face the suffering which comes from their elimination, that is of inefficient units, than to prolong the depression by a fruitless effort in their conservation.

I am not saying this in criticism of anything that has been done, but I suggest that there should be, beginning now, wide and liberal laws under which prompt reorganization with private capital of unwieldy capital structures, wherever they exist in business, may be made.

Perhaps at this point I may be justified in saying a general word about the overworked term "pump priming." I had occasion to say in a little speech which I made in Florida recently this. I will repeat it here:

I am in favor of temporary deficit financing, providing that it is supplemented by an affirmatively stimulating and helpful attitude toward the rail-

roads, toward the utilities, toward the construction industry, and provided further that there be such revision of tax laws and suspension of threats and restraints as will really enable the stimulant of deficit financing to work. I do not believe in the policy of giving a stimulant and then immediately neutralizing its effectiveness. Let us stimulate purchasing power with deficit financing, provided that coincidentally government is ready, actively, to aid the stimulant by decisive measures helpful to business and to business confidence.

That is all, Mr. Chairman.

The CHAIRMAN. Do any members of the committee desire to address questions to Mr. Young?

Dr. LUBIN. Among the items you dealt with, Mr. Young, was the development of the holding company in the utility field?

Mr. YOUNG. Yes.

Dr. LUBIN. And in justification of the growth of those holding companies you mentioned the fact that the investor was thereby given an opportunity to purchase securities over a variety of firms, as it were, as opposed to purchasing in underlying operating companies. Has the experience of the last 3 or 4 years in your opinion led you to believe that the people who continued their holdings in these underlying operating companies came out better or worse than those who bought these securities in the holding companies?

Mr. YOUNG. Let me say at the beginning that I dealt with the holding company as stated, as it existed up to the period of the great war, if you noticed. I have not endeavored to deal with the development of the holding company since. That is quite another story.

Dr. LUBIN. I also was very much interested in what you said about the regulation of utilities by municipal and State regulatory authorities. I take it there must be some hundreds of operating utility companies in the United States. Does the General Electric have any records available showing the number of instances in which rates have been cut, let's say, over a period of 10 or 15 years?

Mr. YOUNG. I don't know that we have now. I think the Edison Institute has complete records of that.

Dr. LUBIN. Is it your impression that those rate cuts were quite frequent?

Mr. YOUNG. Yes; during recent years very frequent.

Dr. LUBIN. But prior to the Federal Government coming into the picture were they frequent?

Mr. YOUNG. Yes; they were coming progressively along prior to that, but I think they have received stimulation—I think the industry believes undue stimulation—from the entrance of the Government into the field.

Dr. LUBIN. The reason I raised that question was the fact that I recently was looking at some figures on rates and the thing that struck me was that in city after city rates remained unchanged for periods of 8. 10, and 15 years, despite the fact that new technology was cutting these costs tremendously.

Mr. YOUNG. Quite true, and the profits were very large during that time. But it is also true that I don't think any regulatory body, during the period of most rapid development, could possibly have kept up with the efficiencies and economies of the engineers.

Dr. LUBIN. Thank you.

Mr. YOUNG. I don't think that was harmful, as I said. I think those additional earnings went back into the properties and supplied

a certain deficiency of capital which they probably then couldn't have got from the public.

Mr. O'Connell. I should like to ask one or two questions about what you had to say about taxes. I understood you, directly referring to the undistributed profits tax, to feel it should have a very limited application and be limited to what you might call personal-holding companies or organizations which have for their purpose the evasion of taxes.

Mr. Young. Yes.

Mr. O'Connell. And if I also understood you correctly, your feeling was that an undistributed profits tax operates to the disadvantage of new and small industries.

Mr. Young. Yes.

Mr. O'Connell. Would you care to say whether, in your opinion, or how in your opinion, it operates as regards large and well-established industries?

Mr. Young. Well; I may say how it operates so far as the General Electric Co. is concerned. It is a matter of no consequence at all to us. We have ample liquid capital; we have no debts, we intend to distribute our earnings to our stockholders as they come along. The effect the tax will have, the impact of the tax, will be much more serious on our small competitors. It will have no influence upon us.

Mr. O'Connell. When you speak of the undistributed profits tax you mean the tax that now exists or the one that existed before the last revision?

Mr. Young. It doesn't make any difference, because we are going to distribute our profits to our stockholders anyway, no matter what the tax is or whether there is no tax. It makes no difference.

Mr. O'Connell. So you believe, insofar as your company and companies of your type are concerned, an undistributed profits tax is all right. It gives you an advantage.

Mr. Young. I say it doesn't hurt us. I think in the long run, if it is continued, that it will, especially at high rates, impair tremendously all of our small competitors.

Mr. O'Connell. But it won't hurt your company?

Mr. Young. It won't hurt us.

Mr. O'Connell. And as regards the capital gains tax, I understood you to feel that the capital-gains tax should in all probability be completely eliminated?

Mr. Young. Yes; that is the way I feel.

Mr. O'Connell. Is that on the theory that it impairs confidence?

Mr. Young. It is on the theory that what we need most in this country now, as I see it, is adventure capital and equity capital, and I do not see how we can hope to recover from this depression without the promotion of new industries and without the supply of equity capital for certain old industries which need it, and it seems to me that the capital gains tax is the greatest deterrent toward the supply of equity and adventure capital.

Mr. O'Connell. Do you happen to know when a capital gains tax first became a part of our tax structure?

Mr. Young. I haven't looked that up; no.

Mr. O'Connell. I was under the impression that it was about 1922.

Mr. Young. Yes?

Mr. Henderson. Then we had a whole movement in the twenties when the capital gains tax was still in effect. Is it your opinion, then, that at a time like this, when we are perilously in need of expansion, repeal of the capital gains tax would have a much more restraining effect than it had in the twenties?

Mr. Young. I should think it would have a very great effect on the positive side.

Mr. Henderson. It didn't have much of a restraining effect in the 1920's.

Mr. Young. Nothing had any restraining effect in the 1920's.

Mr. Henderson. We had a dynamics in the system.

Mr. Young. That is the trouble. Nobody was thinking. They were in unrestrained action.

Mr. Henderson. This is a very instructive history.

Senator King. Before you leave the question of taxes, may I ask a question? Isn't it a fact that Great Britain, after a number of years operating under the capital-gains tax, abolished it and took no account of its capital gains or losses?

Mr. Young. That is my understanding. Sir Josiah Stamp has read me long lectures on that.

Senator King. And with respect to evasion by withholding undistributed profits, isn't it a fact that one of the sections, I think it is section 506 of our statute, makes it clear that if it is for evasion, punishment may be had and the penalty is very severe against a corporation, so that the Government has in its hands now a club by which it may force the declaration of dividends from undistributed profits?

Mr. Young. I haven't experience enough from the Government end to know how effective that is, but I would say, Senator, that I referred to that matter only because I didn't want to be understood as in any sense favoring the repeal of the excess-profits tax when it might prejudice the Government collection of taxes or might favor tax evasion.

Senator King. I think, if I may be pardoned a personal statement, the hearings before the Finance Committee with respect to the undistributed profits tax are being held. I will say, frankly, I was always against it because I thought it was very unwise, and it would result in penalizing the small corporations against the large ones, and the evidence before the committee showed that those corporations that had those large reserves weren't affected, and when the panic came on many corporations distributed—oh, a tremendous sum, billions of dollars, to the stockholders at that time, and the corporations continued in business because of the reserves which they held as a result of the undistributed profits, so that ultimately it filtered back into the industries and into the pockets of the employees and the public generally.

Mr. Henderson. I think, Senator King, the figure to which you are referring was an amount of negative savings to the corporations which was not the amount paid out. It was the amount which was charged against those accumulated surpluses that had been derived from maintained earnings, and for the large part they didn't represent disbursements in the way of wages and dividends as much as they represented an ability of the corporation to adjust its affairs by writing down its inventories and writing down the value of its securities, which I think was the procedure your company went through.

Senator KING. I don't agree with that, but that is a controversy we can carry on before the Finance Committee, because we will have that question up within a short time.

Mr. YOUNG. Oh, yes; we have written down plants that cost 200 millions to 40 millions.

GENERAL ELECTRIC CO.—CAPITAL REQUIREMENTS FINANCED ENTIRELY FROM INTERNAL SOURCES SINCE 1920

Mr. HENDERSON. You have been writing down your fixed plant investment over a period of time, as I recall. Considering it from about 1920 down to now, you have had at least a 30 or 35 percent reduction in that.

The CHAIRMAN. What was the answer?

Mr. YOUNG. Yes; I think that is so. I haven't the figures before me in percentage. I should think it would be at least that.

Mr. HENDERSON. Have you the figures on your fixed plant after deducting depreciation from the early twenties down to now? I think it will show about 30 to 35 percent reduction.

Mr. YOUNG. It is all shown in the annual reports and we will be glad to send you a tabulation of it.

Mr. HENDERSON. I have some of those and I have been over them at various times.

I want to get back to this period when you were in the expansion phase of G. E.'s existence; as I recall, until the end of the war you might be said to have been in that period.

Mr. YOUNG. Yes.

Mr. HENDERSON. And then right after the close of the war you had a need, because of tremendous orders that came in, for some financing, but since that time there has been no need to go to the capital markets.

Mr. YOUNG. No.

Mr. HENDERSON. In fact, you have been going through a process of disinvestment, as I recall.

Mr. YOUNG. Yes.

Mr. HENDERSON. With retirement of your bonds and——

Mr. YOUNG (interposing). We called our bonds; we called and paid off our forty-odd millions of preferred stock, our special stock; we distributed to stockholders 50 millions of securities in the shape of Electric Bond & Share Co. and Radio Corporation stock in addition to the cash dividends during that period.

Mr. HENDERSON. And so to all intents and purposes your general experience parallels that of Mr. Stettinius' company in that from your internal sources, after you had arrived at this period of relative maturity in your company, you could do the financing without tapping outside savings.

Mr. YOUNG. That is right.

Mr. HENDERSON. I should like to ask you also, as I recall pretty generally you have not spent for plant and equipment since 1921 or 1922 as much as your depreciation account; is that true?

Mr. YOUNG. I think that is probably true.

Mr. REED.[1] Our plant was carried at 66 millions in 1920 and carried at 40 millions in '38, so there has been a net reduction of $26,000,000.

[1] Phillip D. Reed, assistant to the president, General Electric Co.

Mr. HENDERSON. Yes; and you have had the depreciation account available and you did maintain your capacity intact, I imagine, or did it increase during that period? That is, here is a period in which you have not been spending as much for new investment or for replacement as was available from the depreciation account, and your plant has been carried at a lower figure. Now has your capacity in that 18-year period expanded, contracted, or stayed the same?

Mr. YOUNG. When you talk about capacity in a concern like the General Electric Co., it is very difficult to answer without being misleading.

Mr. HENDERSON. Particularly when in 1920 there was no such thing as a radio tube and now there is; yes.

Mr. YOUNG. You see, now in an automobile company that capacity means something; even in the steel company it means something, but do you realize that the General Electric Co. makes over a million different kinds of things—over a million different kinds of things?

Mr. HENDERSON. I realize, Mr. Young.

Mr. YOUNG. And, therefore, when you start talking about capacity it is almost impossible to deal with it intelligently.

Mr. HENDERSON. Take it on the dollar volume of products.

Mr. YOUNG. Yes.

Mr. HENDERSON. There has been an expansion since 1920, hasn't there?

Mr. YOUNG. Oh, yes.

Mr. HENDERSON. So what you said, of course, was correct about the undistributed-profits tax; it would not have affected you in that period, but in the early period.

Mr. YOUNG. It wouldn't affect us in that period, nor can I see how it would affect us in any reasonable projection of time.

Mr. HENDERSON. In that same period, as I recall from 1921 to around 1929, the retained earnings of all American corporations were something like $32,000,000,000, and you have expressed yourself as being against—as Senator Harrison and many others have, and as Senator King has—the use of a retained earning as a basis for escape from personal taxation.

Mr. YOUNG. Yes.

Mr. HENDERSON. Now, assuming that you had an exemption for small concerns by which they could have built up their capital, since we know pretty well that their access to the capital markets is decidedly limited, would you have had any feeling about the larger corporations if some way had been conveniently available for allowing them to retain the earnings and yet pay somewhat the same ratio of tax as the dividends which actually passed out? As I recall, probably $4 passes out and $3 is retained of the earnings of the twenties and that $4 that passed out, particularly when it passed to the higher brackets, was subject to a rather high taxation.

Now, in England they have means by which they get at the amount which is retained. I wonder if you have given any thought to the possibility of something like that which would have gone beyond the purely escape function of the personal holding company, but would have gone to the desirability of taxing the more stable and larger corporations on a basis of what was really the investors' equity retained by the company?

Mr. YOUNG. I think that if there is any way by which that could be reached, particularly in the larger brackets, it is justifiable.

Mr. HENDERSON. The English have had a much better experience than we. Have you talked to Josiah Stamp about that?

Mr. YOUNG. Yes; I have.

Mr. HENDERSON. Other English observers besides Stamp, as they have come into this country, have said that we failed to get at some of the proper uses of taxation to reach that 32 billion. As I gather from your testimony, you see probably, like Mr. Stettinius, no time in the immediate future in which your company will be needing new financing.

Mr. YOUNG. I can't.

Mr. HENDERSON. And therefore you are looking toward risk and venture, the encouragement of risk and venture for the newer companies and for newer enterprises and for smaller companies in their expansion.

Mr. YOUNG. Newer companies and new business and the smaller companies for equity money and the newer businesses for venture capital.

Mr. HENDERSON. Suppose that there was an adjustment in the credit granting mechanisms so that a small company, a medium-sized company, could get capital or get bank credit which it could liquidate on a longer term than the banking acts now permit, wouldn't that be much better as far as immediate stimulus goes than merely the provision concerning retaining undistributed profits or the repeal of the capital gains tax?

Mr. YOUNG. It seems to me that that presupposes that the Government is going to provide that financing. I don't see how it can be done by private business.

Mr. HENDERSON. You mean private business—you mean private banking business?

Mr. YOUNG. Yes; any private business—whether it is the individual or the banker.

I don't see how anyone can supply that equity and adventure capital on the terms which were indicated unless it be the Government, or Government-guaranteed.

Mr. HENDERSON. We have had an experience over at F. H. A.

Mr. YOUNG. Now personally, and this I would like to make very clear, I think that anybody who puts equity capital or adventure capital into a concern has to participate in management; and I think if the Government provides equity or adventure capital, it will inevitably have to participate in the management of the hundreds of concerns, small concerns in this country that need it. I don't believe that that is the way to develop the business of the country, either from the standpoint of the Government or from the standpoint of our economy.

Mr. HENDERSON. May I say also that I agree with you, that any plan which contemplates the Government's participation in the management of thousands of concerns ought to be thrown down immediately. But isn't there something in the F. H. A. experience of guaranteeing loans through banks which might be used for small concerns?

Mr. YOUNG. Possibly; I wouldn't say it could not be done, but I say that when you supply equity capital without the responsibility

somewhere on their part to watch the management, that it is a precarious enterprise.

Mr. FRANK. Mr. Young, I gather you think, if new and small and medium-sized enterprises are to be aided, that you would prefer to see that aid, assuming Government weren't to do it, come in the form of equity financing rather than disproportionately through loans.

Mr. YOUNG. I don't think that loans will solve the problem at all. I have had some experience in watching the applications of the Federal Reserve bank in New York, where I am chairman of the board of directors, and the great number of cases that apply there for loans, even on a 5-year term, are cases which need permanent fixed capital, capital to be invested in new machinery, perhaps in new improved machinery, in the development of processes, which in the nature of things can't be paid back.

Mr. FRANK. And even if the loan were of long term, the fixed charge through interest might put the small, growing business in a precarious position if there came a temporary recession and default, whereas equity financing would avoid that embarrassment.

Mr. YOUNG. It would avoid that embarrassment.

Senator KING. Don't you think, Mr. Young, you are building up on a rather sandy foundation—at least, not a desirable foundation—where the Government is the creditor and most of the people are the debtors, which will result if the Government extends credit to the little man and to the big man and to all enterprises? Isn't that a situation which we should avoid if we can?

Mr. YOUNG. Without any question.

Senator KING. Our country has grown during the twenties and thirties and forties and fifties and sixties, and on, without the interposition of the Government in extending credit to everybody; and the more credit we have extended during the past few years, the worse off we are.

Mr. YOUNG. Quite true.

Dr. LUBIN. We didn't loan them; we gave land away and we gave franchises away. Instead of loaning these people things, we gave them gifts, in tariff protection and things of that sort.

The CHAIRMAN. Are there any other questions?

Dr. LUBIN. Just one question. Mr. Young, I was very much interested in your statement to the effect that you were in favor of deficit spending if at the same time certain constructive things were done along certain lines, and you particularly mentioned construction. There is no doubt, I think, in any of our minds that the basis of a real forward movement in the American economy is in construction right now. Do you have any suggestions—would you amplify your statement when you say we should take constructive action to lead to the stimulation of construction? Here you have the whole housing problem which has a potential capacity to absorb four or five billion dollars per year. Have you any ideas as to what we can do constructively to stimulate housing?

Mr. YOUNG. That is such a large area now, and one is so likely to be misunderstood if he deals with a segment of it without dealing with the others, that I hesitate to answer that question.

For 2 years at least I have said that I thought it would be better, even from the standpoint of the Government, to exempt a certain

amount of a man's income if he put it into housing than to have the Government provide the money itself for the housing, and that was because you have literally several million people interested in developing housing, watching the character and cost of construction, and trying to make that valuable, and I don't see how any over-all organization of Government can possibly do that kind of thing as well. That is my own personal feeling.

Senator KING. Governments haven't exhibited much omniscience, although they have exhibited a great deal of omnipotence.

Mr. YOUNG. They exhibit as much omnipotence as any of us do. They are no better or worse than we.

Senator KING. But I would rather trust you than trust the Government.

The CHAIRMAN. I was absent, of course, Mr. Young, when you came on the stand, and it may be that in your prepared statement, which of course I haven't had the opportunity of reading from the beginning, you may have covered some of the points that I should like to develop. A little while ago you were testifying about the present capital of the General Electric Co. I understood you to say that that amounted to approximately 332 million?

Mr. YOUNG. Three hundred and twenty-two.

The CHAIRMAN. Three hundred and twenty-two, of which 192 million is represented by earnings, 92 million by investment, and 38 million by the acquisition of property?

Mr. YOUNG. That is right.

The CHAIRMAN. I take it from that statement that $38,000,000 worth of capital stock was issued in exchange for property?

Mr. YOUNG. For property.

The CHAIRMAN. At what value was the stock issued in exchange for the property, at reasonable accurate cash value of the property?

Mr. YOUNG. I have said that I thought it was probably a fair value. My idea in that is that that very largely came in the early days first when they took over Edison and Thomson-Houston. They issued stock against plants, do you see, and so they——

The CHAIRMAN (interposing). Is there any possibility when that stock was issued against plants it really was in excess of the valuation of the plants?

Mr. YOUNG. I should doubt that.

The CHAIRMAN. That, of course, has happened in some financing?

Mr. YOUNG. I think in every case that I know where General Electric stock has been issued there has been such an adversary position between the person parting with the property that got stock that it is fair to assume that the properties were correctly priced. There was no place that I know where anybody interested in the General Electric Co. sold its property and took stock back.

The CHAIRMAN. Now you have no debt?

Mr. YOUNG. Which is the usual case, isn't it, where the excessive valuations appear?

The CHAIRMAN. I think so. Now you have stated that the company at the present moment has no debt?

Mr. YOUNG. No debt; no preferred stock.

The CHAIRMAN. It did borrow in the earlier days?

Mr. YOUNG. Oh, yes.

The CHAIRMAN. What was the total amount of borrowings which have been repaid?

Mr. YOUNG. Senator, even in 1920 when those inventories shrank so severely, it borrowed $45,000,000 from the banks.

The CHAIRMAN. Can you tell me, approximately?

Mr. YOUNG. And it paid back 42 millions in the first 3 months of the succeeding year.

The CHAIRMAN. Can you tell me the total amount of borrowings which have been repaid throughout the life of the company? You might have covered that in your earlier statement.

Mr. YOUNG. If you omit the bonds, the total short-term borrowings of the company, as I see them here, $92,900,000.

The CHAIRMAN. I beg your pardon?

Mr. YOUNG. $92,900,000.

The CHAIRMAN. Now, then, your earnings were $192,000,000, which have been retained?

Mr. YOUNG. Been retained.

The CHAIRMAN. And you paid out in dividends 655 million?

Mr. YOUNG. 655 million.

The CHAIRMAN. That would make a total of 939 million which were earned approximately during this entire period?

Mr. YOUNG. Yes.

The CHAIRMAN. As against a total investment of approximately 130 millions, figuring the acquisition of property at face value of the capital stock issued against it?

Mr. YOUNG. Yes.

The CHAIRMAN. And you are now what I call the U. S. Steel, a self-sufficient company, depending on no outside resources of any kind?

Mr. YOUNG. I think if any company in the country is self-sufficient the General Electric is.

The CHAIRMAN. Now did you give us the number of your stockholders?

Mr. YOUNG. Yes; 208,000.

The CHAIRMAN. And the number of employees?

Mr. YOUNG. The number of employees is between 55,000 and 65,000, direct employees, and not those in the subsidiaries.

The CHAIRMAN. You were here when I questioned Mr. Stettinius about the difference between salaried workers and wage workers?

Mr. YOUNG. Yes; I couldn't hear it very well, Senator; I was sitting over there [indicating].

The CHAIRMAN. Well, do you have that distinction in your company between salaried workers and wage workers?

Mr. YOUNG. Yes; we have somewhere—18 to 20 thousand of those 55 or 65 thousand that are salaried workers.

The CHAIRMAN. From 18 to 20 thousand of the 55 to 65 thousand are salaried workers?

Mr. YOUNG. Salaried workers.

The CHAIRMAN. Who are on more or less permanent basis?

Mr. YOUNG. Yes.

The CHAIRMAN. And the others constitute a floating labor supply which you use or discharge as the needs of the market——

Mr. YOUNG (interposing). I would hardly say "floating." There is a certain number of the younger employees who have, for example,

1 year of service, or so, sometimes 2, may be said to respond to the characterization which you have made.

The CHAIRMAN. Well, perhaps I shouldn't have used the word "floating." What I am trying to differentiate is the salaried worker who has a more or less permanent status and the wage worker whose claim on employment arises only when the plant is operating and you need the work. Now there is that distinction?

Mr. YOUNG. Quite right.

The CHAIRMAN. So that by far the largest proportion of the employees of the General Electric Co. which has made this perfectly marvelous financial record do not have a stable employment with the company?

Mr. YOUNG. Well, I have to say that in certain departments of the company, like the lamp department for example, the incandescent lamp department, we have made an effort to guarantee certain yearly earnings.

The CHAIRMAN. How successful were you in that effort?

Mr. YOUNG. We have been very successful.

The CHAIRMAN. How many persons have you guaranteed annual earnings?

Mr. YOUNG. I would have to get those figures for you, Senator.

The CHAIRMAN. Could you give me any idea?

Mr. YOUNG. May I throw a little light on that incandescent lamp? That is something, being a necessity, you can count on a reasonably certain demand. In the dull seasons we can make them and store them and let the inventory run up, because we know the demand is coming; and, therefore, that kind of business lends itself to a guaranteed wage without great risk on the part of the employer, and with great assurance to the employee, and it ought to be done wherever it can be done.

Now let me point to another case. In the turbine department, where you are building turbines of great horsepower, and where utility companies may order many of them over a short period, or they may give you no orders at all over a long period, it just isn't possible, so far as we now know, to make any guaranteed wage or employment to workers of that kind. Now, it is just as Mr. Stettinius said; I heard him say that, that when the automobile business squares itself away so that the demand for steel is continuous, then the steel companies can do something. When the utilities and the industrials square themselves away so as to give us anything like a regular load, on a turbine plant, then we can do something.

The CHAIRMAN. Well, in other words, the effort to guarantee wages to the employee can be made only in those departments of your company which have a more or less stable and steady output?

Mr. YOUNG. Very true. We are quite ready to pay the price of increasing our inventory, for example, during the summer months in lamps, where it runs up very high, in order to keep our people at work.

The CHAIRMAN. Now, what has been the effect upon employment by your company of modernization? The testimony of Mr. Watson, you remember, for the U. S. Steel was that in those plants where the modernization had taken place there was a reduction of 25 percent of the employment schedule?

Mr. YOUNG. Now, again, sir, I think that any answer to that or attempt to answer it would be more misleading than enlightening because, for example, the problem of modernization of the incandescent-lamp field or modernization in a repetitive thing like refrigerators, and so forth, where you have large volume is one thing. When you move over into the made to order industries, like turbines and large motors and generators, and so forth——

The CHAIRMAN (interposing). But the modernization of which I speak, the modernization of your own equipment which enables you to produce your output with fewer employees. Now you have such a modernization, do you not?

Mr. YOUNG. Yes; but in order to make that enlightening we would have, for example, to make comparisons between now and $x$ years ago in the incandescent lamp field for you. Then that would mean something—or in the turbine field, or in the refrigerator field.

The CHAIRMAN. Then have you no present impression of the effect of what is called technology on employment in your company?

Mr. YOUNG. I haven't any question but what that has reduced it.

The CHAIRMAN. It has reduced employment?

Mr. YOUNG. I haven't any doubt but what it has. That is the whole tendency of industry, but if you were to ask for figures about it I think it would be wholly misleading unless you apportioned it to departments. That is what I am trying to get at.

The CHAIRMAN. Now the wage cost, I suppose, represents with General Electric as it does with most other enterprises a very substantial portion of the total cost of production?

Mr. YOUNG. Yes. In wages I should say it represents about 50 percent.

Mr. HENDERSON. We have it here, Mr. Young. During the period you sold $7,000,000,000 worth of products you paid employees two billion and seven, so that would roughly be about 38 percent.

Mr. YOUNG. Forty percent perhaps. The question is whether you relate it to costs or selling prices; in relation to costs it is perhaps 45 or 50; in relation to selling prices naturally it is less.

The CHAIRMAN. Your testimony was, as I recall it, that throughout the history of the development, approximately at least, General Electric has maintained about 20 to 25 percent of the total output of the entire electrical industry?

Mr. YOUNG. Yes.

The CHAIRMAN. To what do you attribute that proportion, that steady proportion?

Mr. YOUNG. Well it is very surprising, Senator, to see how difficult it is in a growing industry for any concern to increase its percentage, if there is adequate competition.

The CHAIRMAN. Well is the electrical industry still a growing industry?

Mr. YOUNG. I think it is still—the last few years don't indicate it very well in gross business, but I think it is an expanding industry still.

The CHAIRMAN. Well, assuming that is only a temporary——

Mr. YOUNG. I do.

The CHAIRMAN. Development, then in the electrical industry there is now the opportunity, in your opinion, for adventure capital and equity capital?

Mr. YOUNG. I think undoubtedly.

The CHAIRMAN. What is the comparative opportunity of adventure capital to secure investment as compared with you? Or let me put it the other way. What is the comparative opportunity of some new company or some new enterprise to obtain capital for adventure in the electrical industry field as compared with your self-sufficient ability to finance expansions yourself?

Mr. YOUNG. Well, over the last 30 years there have been great numbers of smaller electric concerns started, and they have obtained capital even against the strong position of the General Electric and Westinghouse. Now why do they do that? Sometimes because of smaller overhead, of closer contact with workers, of quicker and more effective production and delivery. There are great margins in there for small business.

The CHAIRMAN. A loan to a small business of that kind would not in your opinion be uneconomic?

Mr. YOUNG. A loan?

The CHAIRMAN. Yes.

Mr. YOUNG. Well, I think—I don't think you can deal with it through loans, Senator. I think we made that mistake ever since the depression began, that we have complained because banks didn't make loans or Federal Reserve banks didn't make loans. The fact about it is that there is all the difference in the world between loaning a company something where it turns over its capital and can pay it back and lending money to buy machinery or something of that sort, and have it fixed capital where it can't pay back.

The CHAIRMAN. But I understood you to tell me, in your opinion, there is an opportunity for adventure capital.

Mr. YOUNG. Yes; equity capital but not loan capital. I am making that distinction in reference to your term "loan capital."

The CHAIRMAN. It isn't altogether clear to me why it was an economical and wise thing for General Electric to borrow money to adventure in this field and why it would be unwise for a small enterprise to borrow money for that purpose.

Mr. YOUNG. Oh, it isn't unwise for the small company to borrow. Please don't misunderstand me.

The CHAIRMAN. Then I didn't get your explanation.

Mr. YOUNG. Suppose a small company has a block of orders here and it needs to buy materials and pay wages in order to get them out, but it has the orders and the buyers are here. There is no reason why they shouldn't borrow money to carry that and pay it out of the proceeds of the sale.

The CHAIRMAN. Then it comes down to this, that a loan which is on security in the business is a perfectly proper loan——

Mr. YOUNG. No; if you will pardon me just a minute. It is quite a different matter to borrow money to build machines to fill those orders because you can't liquidate the cost of the machines out of the orders and, therefore, you have an unlimited—there is no way of paying them back; you can't turn the machine over to the bank very well.

The CHAIRMAN. But if the machines were to produce a product for which there was an insured sale in an expanding industry, would not that product be a——

Mr. YOUNG (interposing). It would over a course of time.

The CHAIRMAN. But that, of course, is what the little business enterpriser says he can't get and what he should get.

Mr. YOUNG. Well, what I think, he may be mistaken himself. I don't think he wants loans. He needs partners to put up money with him. That is what he needs.

Mr. FRANK. Isn't the difficulty, if he borrows against a fixed plant and if for any reason there is a temporary recession so he isn't able to earn enough to pay the interest on the loan, he is going to be foreclosed?

Mr. YOUNG. Bankrupt.

Mr. FRANK. Therefore, what he ought to have is a flexible condition where those who advance the money are his partners and will take potluck with him in those periods of recession.

Mr. YOUNG. Quite right.

The CHAIRMAN. In response to the question asked by Mr. Henderson, you spoke of the unrestrained activity of the twenties.

Mr. YOUNG. Yes.

The CHAIRMAN. And rather deprecating it, I think.

Mr. YOUNG. I did; perhaps I didn't emphasize it enough.

The CHAIRMAN. By whom or what should that activity be restrained?

Mr. YOUNG. Well, now that is quite a long story, but it is very near to my heart.

The CHAIRMAN. It is near to the heart of a lot of people, I think.

Senator KING. Near to the purses of a lot of them, too.

Mr. YOUNG. I think that the handling of the credit situation in the 1920's was an inexcusable blot on our whole economic mechanism. There was no control over credit by anybody. The Federal Reserve System didn't adequately function. The banks couldn't function because there was bootleg money in the market and until you got a complete run-away credit situation, which I think was at the base of the trouble of the 1920's.

The CHAIRMAN. Well, what agency could have restrained that run-away system?

Mr. YOUNG. I think myself—and I was a part of the Federal Reserve System then—the Federal Reserve System, if it had taken that situation in hand early enough, say in 1927, could have prevented entirely the catastrophe that came in 1929.

The CHAIRMAN. Well, that to a certain degree at least would be a Government restraint, would it not?

Mr. YOUNG. Well, to a certain extent, yes.

The CHAIRMAN. Now what did you mean by the phrase "threats and restraints" which you felt ought to be removed? What threats and what restraints? Certain restraints are good.

Mr. YOUNG. You don't really want me to answer that.

The CHAIRMAN. If you care to, Mr. Young. I will be very glad to have you answer it. I am just trying to develop a picture.

Mr. YOUNG. Because if there is one thing that I don't stand for in this economy it is an accumulation of complaints about what has been done. I think we all sense that certain menacing attitudes have been taken, one way or another, sometimes necessarily taken; in any event, there is a certain break in confidence in our business structure and I wouldn't like—I would like to see the attitudes changed sufficiently so that we might get some confidence in place of the present.

The CHAIRMAN. Well, there was plenty of confidence during this period of no restraint to which you referred a little while ago.

Mr. YOUNG. Yes; I know.

The CHAIRMAN. That was overconfidence.

Mr. YOUNG. That was overconfidence, and what I am speaking of now is that here we are trying to lift ourselves out of the depression by getting an increased business turnover and a consequential increase in the national income, and unless we get that increase in the national income, I do not see how we can go on with the plans that we have. Therefore, the first thing to do, it seems to me, is to try and get this machine functioning so that the national income can be adequately increased.

The CHAIRMAN. Now, in the course of your prepared statement you paid a compliment, and a very gracious compliment, I thought, to the various regulatory bodies of the various States.

Mr. YOUNG. Yes.

The CHAIRMAN. Those bodies exercise a certain amount of government restraint.

Mr. YOUNG. They do, and when I said restraint I did not mean to criticize the regulating agencies of the Government. Some of them are new, they haven't found their way yet. Great difficulties are facing them. It is no complaint about them to say that. It takes time to work that out.

The CHAIRMAN. So that, obviously, we cannot draw the picture in either broad sweeps of black paint, or broad sweeps of white paint.

Mr. YOUNG. You are quite right.

The CHAIRMAN. And say, thus far shall you go in Government restraint.

Mr. YOUNG. You are quite right, and that is the reason I didn't want to answer your question about restraints, lest I be considered as drawing black paint across this picture, which I have no desire to do.

The CHAIRMAN. My feeling was that the reference to threats and restraints, which ought to be done away with without defining them, might be so interpreted, and I think perhaps you have cleared that up.

Mr. YOUNG. Thank you for helping me clear it up, sir.

Senator KING. You referred to the runaway situation during the twenties, 1920 and on.

Mr. YOUNG. Yes.

Senator KING. Was that not largely due to the gambling propensities, the speculative spirit which existed in every industry and in every segment of our country?

Mr. YOUNG. I think it was due to that spirit plus an unrestrained credit situation.

Senator KING. I recall going through the stock exchange to make inquiry in 1924, 1925, 1926, 1927, and 1928, and I found there that the banks of New York had loaned on margins for stock purchased by people in every part of the United States more than 7 or 8 billion dollars as a maximum.

Mr. YOUNG. Tremendous.

Senator KING. And I introduced bills in the Senate to restrain the Federal banks from loaning upon marginal transactions. I could

get no support. The people resented it, they felt that they ought to be permitted to buy stocks, gamble upon the stock exchange, and you would find farmers in every part of the United States clamoring to get to the telephone to ascertain whether there had been a rise or decline in the stocks in which they had invested the day before.

Mr. YOUNG. Quite true.

Senator KING. So wasn't the situation largely the fault of the gambling and speculative spirit, and the phobia that possessed the American people?

Mr. YOUNG. Senator, let me give you a reference to show how strong that spirit was. A given manager of a business who realized that the price of his shares was wholly out of line with their true value, made a public statement to that effect, and the day after he made the statement, the shares took the largest rise they had in weeks because somebody said, here was a conspiracy on his part to buy in the shares for less than they were worth. So what were you going to do?

Senator KING. So that the banks were largely to blame for loaning so much money upon collateral which in many instances lacked value.

The CHAIRMAN. This isn't a very good preliminary for the conclusion that we ought to let business regulate itself, is it?

Senator KING. I think it is so; yes. Children fall down. You let them run.

The CHAIRMAN. You shouldn't have introduced those bills.

Senator KING. The banks are subject to Government control.

The CHAIRMAN. Well, it is after 6 o'clock, Mr. Young, and we are very much indebted to you for a very interesting afternoon. It was very illuminating. What is your program for tomorrow?

Mr. NEHEMKIS. We hope to proceed promptly at 10:30 with Frederick R. Rentschler, United Aircraft Corporation.

The CHAIRMAN. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon, at 6 p. m., a recess was taken until Thursday, May 18, 1939, at 10:30 a. m.)

# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

THURSDAY, MAY 18, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMICS COMMITTEE,
*Washington, D. C.*

The committee met at 10:40 a. m., pursuant to adjournment on Wednesday, May 17, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senators O'Mahoney (chairman) and King; Representatives Reece and Williams; Messrs. Henderson, Hinrichs, Lubin, O'Connell, and Brackett.

Present also: Ernest S. Meyers, Department of Justice; Ernest Tupper, Department of Commerce; Peter R. Nehemkis, Jr., special counsel, Investment Banking Section, Securities and Exchange Commission; and Joseph R. Kelley, associate counsel, Investment Banking Section, Securities and Exchange Commission.

The CHAIRMAN. The committee will please come to order. Mr. Nehemkis, you are ready to proceed this morning?

Mr. NEHEMKIS. I am, sir.

The CHAIRMAN. Who is your first witness?

Mr. NEHEMKIS. The first witness is Mr. Frederick B. Rentschler, chairman of the board of the United Aircraft Corporation. Mr. Rentschler is in the stand at this moment.

The CHAIRMAN. Mr. Rentschler, do you solemly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. RENTSCHLER. I do.

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, yesterday there was presented to the committee a discussion of the way in which some of our major industries have expanded, largely through their own internal accumulated resources. We have been told by the witnesses who appeared here yesterday how the United States Steel Corporation, the General Electric Co., and the railroad industry are virtually financially self-sufficient business units. That is to say, these industries have little recourse to the capital markets for plant expansion and replacement, but these industries, it will be noted, are mature industries.

This morning we shall turn our attention to an industry which is a relatively new industry, the airplane industry. As Mr. Young observed yesterday, one of our great needs today is venture capital.[1] Accordingly we invite the committee's attention to a case history where the question of venture capital has loomed large. This morn-

[1] Supra, p. 3618.

ing you shall hear the story of three men who upon returning from the war had between them three things; an enthusiasm for the airplane, a good idea, and a thousand dollars. I therefore call one of these men to tell the story of the United Aircraft Corporation's development and expansion, Mr. Frederick Rentschler.

## TESTIMONY OF FREDERICK B. RENTSCHLER, CHAIRMAN OF THE BOARD, UNITED AIRCRAFT CORPORATION, HARTFORD, CONN.

Mr. NEHEMKIS. Will you state for the record, please, your name and address?

Mr. RENTSCHLER. Frederick B. Rentschler, Hartford, Conn.

Mr. NEHEMKIS. And will you state, sir, your connection with the United Aircraft?

Mr. RENTSCHLER. Chairman of the board of United Aircraft Corporation.

Mr. NEHEMKIS. Now, Mr. Rentschler, I am going to ask you to tell in your own words and your own way the beginning, the development, and the expansion of your corporation from a small business enterprise to one of our large and growing and important corporations, and the way in which you and your associates have financed this expansion through the internal sources of the corporation. Will you proceed, Mr. Rentschler?

Mr. RENTSCHLER. We are pleased to respond to your invitation to appear before this committee to tell the history of United Aircraft Corporation of Hartford, Conn. This company makes Pratt & Whitney aircraft engines, Hamilton Standard propellors, and Vought-Sikorsky airplanes.

The backbone of our present company is the Pratt & Whitney engine division, and I believe this committee would be interested in the history of the original Pratt & Whitney Aircraft Co.

Pratt & Whitney Aircraft Co. was incorporated in July 1925, in compliance with a contract between the Niles-Bement-Pond Co., George J. Mead, and myself, with the object of developing airplane engines. About 1 year previously I resigned as president of Wright Aeronautical Corporation located at Paterson, N. J. About 4 years prior to this date I had assisted in the organization of Wright Aeronautical Corporation; was first its vice president and general manager and shortly thereafter became president. For several years Mead was chief engineer of that company.

Thus it was in the spring of 1925 I began serious consideration of some way of going on with the development and manufacture of aviation engines.

I discussed this possibility fully with the Bureau of Aeronautics of the Navy Department. The Navy believed that if a successful air cooled engine of approximately 40 horsepower could be developed, it might have a very broad application in naval as well as all other types of aircraft. This was obviously a highly experimental project at that time. However, here was the opportunity, if a successful engine could be developed, to start a company. The Navy advised that there were no experimental funds to finance this project, as it was against the policy of the Navy to do this in advance, but Navy did advise that if an engine meeting their performance requirements were successfully demonstrated on a naval

endurance test, they would then be prepared to order experimental engines and that if these were successful in flight demonstration, quantity orders might follow.

SOURCES OF CAPITAL FUNDS—PRATT & WHITNEY AIRCRAFT CO.

Mr. RENTSCHLER. Now, at this time my hopes for a new company had therefore reached the point where we knew what we wanted to do and believed that we had the experience to do it, but did not have the capital to begin our operations.

I believed that this was not an ordinary banking proposition, due to the extra hazard of the new aviation industry. It came to my attention that the Niles-Bemen-Pond Co. had surplus plants on hand and also a considerable amount of cash, neither of which could be immediately used in its own business. Niles was one of the oldest manufacturers of machine tools and precision tools, gages, and shop equipment. After negotiations with them, during which time they thoroughly investigated our plans, we entered into a formal contract with them, out of which developed the Pratt & Whitney Aircraft Co.

Senator KING. What company?

Mr. RENTSCHLER. The Pratt & Whitney Aircraft Co.

Pursuant to this contract, Niles was obligated to advance the sum of $250,000 in cash and to provide space for us to rent, as we might need it, in one of their idle plants in Hartford, Conn. With this sum of money, we believed we could carry through a so-called experimental period, during which time it was our job to design and construct a 400-horsepower air-cooled engine which could pass a successful Navy endurance test.

In the meanwhile, I disclosed progress of my plans not only to George Mead, but to Donald Brown. Both of these men were well known to me, and the three of us became the first employees of Pratt & Whitney Aircraft Co.; Mead as chief engineer, Brown as factory manager, and myself as president.

We went to Hartford and began operations on August 1, 1925, and within a few days had built up our personnel to 30 people and were occupying a few hundred square feet of floor space in a large empty plant of 4 stories, most of which was being used as a warehouse for tobacco. Others in the industry knew as much about Navy requirements for a 400-horsepower air-cooled engine as ourselves and it was now a matter of who first could produce a successful job. In March 1926, our engine of 410 horsepower, which we called the Wasp, successfully passed its Navy endurance test, and shortly thereafter orders were placed for 6 experimental engines of this type.

Following the successful Navy endurance test, the so-called experimental period, as provided for in our original contract, was deemed successfully carried through, whereupon Niles, as originally provided, were obligated to advance an additional $500,000 to carry on. Again, pursuant to this contract, preferred stock in the amount of $750,000 was issued to the Niles Co.

In the meanwhile, additional experimental engines were delivered to the Navy and after exhaustive tests, successfully demonstrated

their superiority to previously used water-cooled types, and this led to the placing of an order for 200 Wasp engines by the Bureau of Aeronautics. This contract was obtained in October 1926. At this time the Niles Co. had advanced the $750,000 referred to above and an additional $280,000 covered by demand note from the aircraft company. I think it is also of interest to note that the Wasp was the first successful high-powered air-cooled type of engine, and its successful demonstration led immediately to a very broad application of the air-cooled type in not only military aircraft, but in all types of commercial aircraft as well.

Needless to say, beginning in 1926 our organization of 30 original men began to expand pretty rapidly and it became a game to see how soon new machine tools could push tobacco out of its warehouse. Our shipments during this period were as follows:

| | |
|---|---|
| 1926 | $57,000 |
| 1927 | 2,760,000 |
| 1928 | 7,900,000 |
| 1929 | 15,898,000 |

I think it is also of interest that our original three employees are still with our present company, United Aircraft Corporation; George Mead as its chief engineer, Brown as its president, and myself as chairman of its board of directors. In the meanwhile, too, we must not lose sight of the fact that of these other 30 employees mentioned above, who might be deemed the founders, one has resigned and one has died and the others are still in our present company.

Now, in review, the Niles Co. risked more than $1,000,000 before there was any real assurance that this new project had got on its feet. At the end of the first several years, and through earnings of the company, the preferred stock of Niles was retired as well as the demand note for the additional sums advanced. Niles owned one-half of the common stock of this new aircraft company, the other half was owned by us. Other than as indicated above, there was no other financing of Pratt & Whitney Aircraft Co.

Now, the above summation brings the Pratt & Whitney Aircraft Co. to the point where, in October 1929, it joined in a merger of other companies to make up United Aircraft and Transport Corporation. This latter company was the result of a desire to develop a thoroughly integrated aircraft company engaging in the manufacture of airplanes, engines and propellers, as well as the operation of air transport lines. All the companies which entered into this united group had histories more or less in line with that of Pratt & Whitney Aircraft Co. All were pioneer companies in aviation; all were developed by individuals whose primary business was aviation; all were originally financed by the personal funds of their founders or through private sources; all were successful in their particular fields.

At the time of the formation of United Aircraft and Transport Corporation, it was deemed advisable to obtain additional capital. Aviation at that period was expanding very rapidly and no one could possibly foresee how long or how sound this expansion would become. In all, $12,000,000 was obtained through the sale of $50 par value cumulative 7-percent preferred stock. Before the dissolution of this company in 1934, all of this preferred stock was retired at the call price of $55, and during the meantime all dividends had regularly been paid thereon.

In 1934, due to Government regulations, it became necessary to bring about the disassociation of aviation equipment and transport companies. In compliance therewith, United Aircraft & Transport Corporation was dissolved and out of this dissolution the following companies came into existence: United Airlines Transport Corporation, The Boeing Airplane Co., and United Aircraft Corporation.

The interest of our group now is solely confined to United Aircraft Corporation. Its plants are all located in Connecticut.

Largely because of the separation into the three groups, United Aircraft found itself lacking in what was deemed to be adequate capital. In March 1936 we offered our stockholders the opportunity of advancing the desired amount of new capital through the issuance of additional stock. The result of this offering was completely successful, and all of the stock was taken up. The company realized approximately $6,000,000 which was used to pay off bank loans in the amount of $2,500,000, the construction of a new propeller plant and additional machinery in the amount of $1,500,000, with the balance of $2,000,000 added to working capital. In 1937 the sum of $1,300,000 was expended for additional plant account, principally machinery. In 1938 $723,000 was expended for new plant account. For the year 1939 there has been expended or authorized expenditures for additional plant account in the amount of $3,000,000.

Still managed and directed by its original personnel, United Aircraft Corporation has continued to make progress. A glance at shipments from its inception in 1934 to date reflects the following:

| | |
|---|---|
| 4 months to Dec. 31, 1934 | $3,800,000 |
| 1935 | 11,885,000 |
| 1936 | 22,300,000 |
| 1937 | 29,295,000 |
| 1938 | 36,800,000 |

It is expected that 1939 shipments will be the largest in our history.

As one of the founders of this aircraft company—and I think I may speak also for Messrs. Brown and Mean—we have felt proud of this job. We took idle cash and idle property in Hartford, and saw this converted into a going vigorous industry which shortly outgrew the original large empty quarters, and then the erection of an entire new plant of our own.

During a little less than 15 years we have grown steadily to a point where our original personnel has been expanded into an average force of between 5,000 and 6,000 people, with a pay roll approaching $1,000,000 monthly. We have given employment to the very finest type of mechanics and skilled workmen, and at highest wages. We have always been extremely satisfied with our location in New England, and particularly in Hartford, principally because of the availability of skilled labor which is so necessary, as well as the procurement of materials and even manufacturing assistance from many of the other skilled workshops of New England. We believe that we must have been a considerable factor against unemployment in Hartford and Connecticut, particularly during the past 5 or 6 years.

Our company has demonstrated its ability to expand its operations to meet all requirements and entirely from its earnings. We intend to continue this procedure as a matter of policy. Our company today is owned entirely by its approximately 29,000 common-stock holders, free of any indebtedness whatever, and we believe with adequate working capital for the future.

Mr. NEHEMKIS. Mr. Rentschler, I desire to ask you a few questions and I think then the committee will undoubtedly desire to interrogate you.

If I understand correctly, Mr. Rentschler, the interest of your group today is confined solely to the United Aircraft Corporation which is an operating company, is that correct?

Mr. RENTSCHLER. That is correct.

Mr. NEHEMKIS. The United Aircraft has one subsidiary?

Mr. RENTSCHLER. The Canadian Pratt & Whitney Aircraft Co., a small company supplying engines in Canada.

Senator KING. Manufactured in the United States?

Mr. RENTSCHLER. Partly, and partly in Canada.

Mr. NEHEMKIS. And the United Aircraft holds 70 percent of the stock?

Mr. RENTSCHLER. Of the Canadian Pratt & Whitney, 70 percent.

Mr. NEHEMKIS. For purposes of clarification and so that the record may be entirely clear, is it correct that the group that you have described is composed of three divisions, so to speak, the Pratt & Whitney Aircraft which manufactures engines?

Mr. RENTSCHLER. That is right.

Mr. NEHEMKIS. Hamilton Standard which manufactures propellers?

Mr. RENTSCHLER. Propellers.

Mr. NEHEMKIS. And the Vought-Sikorsky which manufactures planes.

Mr. RENTSCHLER. That is right.

Mr. NEHEMKIS. Is it correct, Mr. Rentschler, that in the case of the United Aircraft & Transport Corporation, there were two instances of financing, the first for general expansion purposes, where it was necessary to obtain a cumulative 7-percent stock?

Mr. RENTSCHLER. That is right.

Mr. NEHEMKIS. And before its dissolution in 1934, United Aircraft & Transport Corporation called all of its preferred stock at call price of 55; is that correct?

Mr. RENTSCHLER. That is right.

Mr. NEHEMKIS. And is it also correct that throughout the period of its existence, the preferred-stock dividends have been paid regularly by the company?

Mr. RENTSCHLER. Regularly.

Mr. NEHEMKIS. In the early stages of Pratt & Whitney Aircraft Corporation, Niles-Bement-Pond advanced, roughly speaking, 1 million; is that correct?

Mr. RENTSCHLER. That is correct.

Mr. NEHEMKIS. Largely if not entirely for experimental purposes.

Mr. RENTSCHLER. That was all experimental.

Mr. NEHEMKIS. Between July 1925 and August 1934 your capital requirements were 12.5 million plus; is that correct?

Mr. RENTSCHLER. That is right.

Mr. NEHEMKIS. With the exception of about 1 million advanced by Niles-Bement-Pond and the original $1,000 advanced by the incorporators which you have already described, that entire amount of 12.5 millions plus was provided through the sale of the company's products; is that correct?

Mr. RENTSCHLER. Correct.

Mr. NEHEMKIS. The total amount spent for engineering and development between July 1925 and September 1934 was about 3 million plus, was it not?

Mr. RENTSCHLER. That is right.

Mr. NEHEMKIS. After September 1934, the enterprise conducted by Pratt & Whitney Aircraft Co. was carried on by United Aircraft Corporation?

Mr. RENTSCHLER. That is right.

Mr. NEHEMKIS. Between September 1934 and December 1938 the capital requirements of the United Aircraft Corporation were 20 million plus, were they not?

Mr. RENTSCHLER. That is correct.

Mr. NEHEMKIS. So that total internal sources made the following contributions: 1, Depreciation—about 2.6 million; 2, retained profits, about 4.6 million.

Mr. RENTSCHLER. I think that is correct.

Mr. NEHEMKIS. And three other reserves—oh, about two hundred-odd thousand?

Mr. RENTSCHLER. Two.

Mr. NEHEMKIS. During the same period $9,254,000 was expended for engineering and development, is that correct, sir?

Mr. RENTSCHLER. Yes.

Mr. NEHEMKIS. Now, if we combine thoses figures for Pratt & Whitney Aircraft, your plant expenditures totaled about 11 million?

Mr. RENTSCHLER. That is correct.

Mr. NEHEMKIS. Compared with an over all expenditure of about $13,142,000 for engineering and developing?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. Let me interrupt you there. Would you be good enough to repeat those figures?

Mr. NEHEMKIS. Beginning with the internal sources; yes. The internal sources made the following contribution:

Depreciation, 2.6 million; retained profits, 4.6 million; other reserves, 211,000.

The CHAIRMAN. 211,000?

Senator KING. Dollars?

Mr. NEHEMKIS. I want to add that in the event either you or I have not been altogether accurate on a figure, we both have the right to amend any statements. I think my associate, Mr. Kelley, tells me the figure for other reserves should be 217,000; that is correct, isn't it?

Mr. RENTSCHLER. Yes.

Mr. NEHEMKIS. Now, during the same period $9,254,000 was expended for engineering and development. Now, if we combine those figures we have a total which is derived as follows, $6,802,000 plus $4,202,000 for plant expenditures; combining the over all expenditures we have the following figures: 3,888,000 and 9,254,000, giving a total expenditure for engineering and development of 13,142,000. I have one further question, Mr. Rentschler, so that the record may be entirely clear on this point.

Am I correct in assuming that there was no financing of Pratt & Whitney Aircraft Co. from without, except as you have already indicated, and to the extent of $750,000 from the Niles-Bement-Pond Co., in accordance with their original obligation; and then

an addition of $280,000 which was borrowed from them on an open account?

Mr. RENTSCHLER. That is entirely correct.

Mr. NEHEMKIS. And that during the entire period Pratt & Whitney Aircraft Co. never borrowed any money from a bank, even during a temporary period?

Mr. RENTSCHLER. That is correct.

Mr. NEHEMKIS. The witness is yours, Mr. Chairman.

The CHAIRMAN. Mr. Rentschler, as I understand the story that you have told, this great corporation which has made such a name in this country and throughout the world for the manufacture of aviation engines began with a contribution of about $250,000 from Niles-Bement-Pond Corporation?

Mr. RENTSCHLER. That is correct.

The CHAIRMAN. On an arrangement whereby that company which was a very old company, founded in the early days of the United States, as I understand?

Mr. RENTSCHLER. Yes.

The CHAIRMAN. Was to participate in the development of the new industry?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. And by and large it contributed over $1,000,000 in this manner?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. Then to obtain funds for necessary expansion you sold preferred stock?

Mr. RENTSCHLER. True.

The CHAIRMAN. You did not issue any bonds?

Mr. RENTSCHLER. No.

The CHAIRMAN. Now, in addition to the preferred stock there was, of course, common stock?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. But all of the funds that were necessary for the development of the company were, I take it, derived from the sale of the preferred stock?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. The common stock itself, if I remember the story of the financing at the time, was, at least for the most part, distributed as a bonus to promote the sale of the preferred; is that right?

Mr. RENTSCHLER. No; I wouldn't say that. It was common stock issued when the company was incorporated, but it had no value as issued, no nominal value.

The CHAIRMAN. This no value when issued, that is my point, and it was distributed in connection with the sale of preferred stock, was it not?

Mr. RENTSCHLER. It was all of a part of our agreement with the Niles Co. as individuals.

The CHAIRMAN. But my recollection of what happened at the time was that the stock of the company was offered in units of preferred and common; is that right?

Mr. RENTSCHLER. No.

The CHAIRMAN. I am speaking only from memory.

Mr. RENTSCHLER. That was United Aircraft & Transport Corporation, but the events that you were first referring to took place in 1925.

The CHAIRMAN. Oh, yes. Well, the events that I am referring to took place later on?

Mr. RENTSCHLER. Yes.

The CHAIRMAN. The original financing did not involve the distribution of common stock as a bonus with the sale of the preferred?

Mr. RENTSCHLER. No.

The CHAIRMAN. But the common stock was issued as of a nominal value; the real value was in the preferred because that is where the investment was coming from?

Mr. RENTSCHLER. Sure.

The CHAIRMAN. Those who contributed cash to the enterprise contributed by way of the purchase of preferred stock and not by way of the purchase of common stock?

Mr. RENTSCHLER. That is right. The arrangement simply was that Niles had the money; we thought we had the experience, and our business deal with them was that they would have only half of the common stock of the company; half was ours. It was their obligation to put up the money and ours to run the company.

The CHAIRMAN. Now, then, except for the sale of preferred stock you had no other occasion to borrow money?

Mr. RENTSCHLER. That is true today of the aircraft company. As a matter of time, that is from 1925 through to 1928, during which period, however, the company did develop into a going concern that was fully on its feet and very actively engaged in the business of making aviation engines.

The CHAIRMAN. And, of course, there was a growing demand for aviation engines as the aviation industry expanded, and the country became air minded, and the opportunity was there opening to you, and your associates, to take advantage of what we call the new frontier to develop this business and place your company upon a strictly self sufficient basis?

Mr. RENTSCHLER. That was right. It really was the beginning of a realization which was just a dream in 1923 and 1924.

The CHAIRMAN. So that the sales of the aviation engines and returns which you received from these sales were sufficient to place value in the common stock?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. What is the value of the common stock now?

Mr. RENTSCHLER. Well, of United Aircraft Corporation the market price is somewhere in the thirties—'33 or '34, as I remember it—but, of course, that hardly would tie up with the original company we are speaking of now.

The CHAIRMAN. No.

Mr. RENTSCHLER. There have been successive changes in corporate identity.

The CHAIRMAN. But now you are in that fortunate position that it is not necessary for you to call upon the savings of the public for further expansion?

Mr. RENTSCHLER. We think so. We follow that policy to date.

The CHAIRMAN. The concluding statement was, I think, that it is your intention to maintain that position if you can and finance whatever further expansion you may be fortunate enough to undertake out of your own earnings and your own capital?

Mr. RENTSCHLER. That is our aim and policy.

The CHAIRMAN. Now, what is the effect of this development upon employment?

Mr. RENTSCHLER. Well, the effect on employment, I should say, rests with our ability to keep on expanding our business.

The CHAIRMAN. I take it that your business being an expanding business in a new field, the number of employees has constantly been growing?

Mr. RENTSCHLER. That has constantly grown. Our shipments are still upward each year.

The CHAIRMAN. You haven't yet encountered any difficulty by the way of technological unemployment, have you?

Mr. RENTSCHLER. I should say not.

The CHAIRMAN. In other words, the demands of the aviation industry are such that although there may be an increased efficiency of machines, you are constantly using a new labor supply?

Mr. RENTSCHLER. We have been constantly using a new labor supply and think we have kept our corporation, and must keep it, as nearly modern and up-to-date as possible.

The CHAIRMAN. I observed with very much interest as you were giving your prepared statement that in 1937 you expended $1,300,000 for additional plant account, principally machinery, and that in 1939 your expenditures have increased to approximately $3,000,000.

Mr. RENTSCHLER. At the present time, yes; and they may be larger before the year is out.

The CHAIRMAN. So that there are industries which are expanding?

Mr. RENTSCHLER. I think that is right.

The CHAIRMAN. And, of course, that expansion depends upon the demand for the particular kind of product which you are able to offer?

Mr. RENTSCHLER. I think that is true.

The CHAIRMAN. Are there other industries in your mind which might offer similar opportunities to investment?

Mr. RENTSCHLER. Well, I don't know of any I could mention at the moment.

The CHAIRMAN. In any event it is obvious that the problem for the country would be to find other industries such as yours which even in a depression could proceed to expand and increase expenditure for the purposes of development?

Mr. RENTSCHLER. I think that is right. An example in line with what you ask for might be television that it is possible to develop; that is something else new and it is found it can be developed.

The CHAIRMAN. What is your policy toward employees? Do you have a certain number of salaried workers and certain number of wage workers?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. How many salaried workers do you have?

Mr. RENTSCHLER. I will have to——

The CHAIRMAN. Just approximately.

Mr. BROWN.[1] If I may be permitted to answer that. We have a total on the wage pay roll of 5,794. I would estimate that our office pay roll would perhaps run around 600.

The CHAIRMAN. Six hundred out of 5,000?

Mr. RENTSCHLER. Six hundred out of 5,794 as the total.

Mr. BROWN. It might be more; it might be less.

The CHAIRMAN. Now, those office employees are more or less permanent employees? I mean they have all the year round employment? The wage workers, do they have all year round employment too?

Mr. RENTSCHLER. They have as long as we have been running the way we have been. The answer really is "yes," because our plant has been busy continuously.

The CHAIRMAN. But if plant orders should let up why naturally they would be the first to go?

Mr. RENTSCHLER. That is right.

The CHAIRMAN. Have you considered—you probably haven't, because your plant has been constantly expanding and the demand increasing—but have you given any consideration to the question of stabilizing employment of these wage workers on a similar basis to the stabilization of employment which the ordinary salaried worker has?

Mr. RENTSCHLER. We haven't been up against that condition, but I am sure if we should, that we want to. In other words, I think our attitude would be very friendly toward finding some way of spreading employment as far as we could in some proper way.

The CHAIRMAN. Well, the thought that comes to my mind is that it is quite evident not only from the testimony which has been developed here before this committee, from what we see about us, that there are opportunities for expanding industry from time to time, but that the most important obstacle in the way of the development of industry, at least so it seems to me, is the inability of the great numbers of the people who are unemployed or who receive only a miserable W. P. A. compensation from the Government to enter the market to purchase the products of industry, and I concede that to be as great a problem for industry as it is for Government to solve. Indeed, from my own point of view, I think it is a greater problem for industry than it is for Government.

Mr. RENTSCHLER. I agree with you.

The CHAIRMAN. Are there any other questions?

Mr. HENDERSON. I have a question or so.

The CHAIRMAN. Mr. Henderson.

### ADVANTAGES OF FINANCING CAPITAL REQUIREMENTS FROM INTERNAL SOURCES

Mr. HENDERSON. I noticed that you said in your concluding paragraph, Mr. Rentschler, that "we intend to continue this procedure as a matter of policy." That is the policy of meeting all your requirements entirely out of your earnings. Now, that isn't necessarily—hasn't over a period of years been so much a policy as an opportunity, has it? Does it run in your mind that your company

[1] Donald Brown, president United Aircraft Corporation.

definitely planned to finance from internal sources and to get on a very desirable self financing basis, or was it because of your expansion and your earnings and things like that? More of a happenstance. Did you have a conscious policy of keeping away from the capital markets?

Mr. RENTSCHLER. We frankly did. I will admit that under certain conditions we might have been forced to adopt another policy.

Mr. HENDERSON. You say "forced." Do I get a connotation from that that you would like to keep away from the capital markets?

Mr. RENTSCHLER. Well, I would frankly say that I would; yes.

Mr. HENDERSON. Why?

Mr. RENTSCHLER. Well, I think if you can do it the other way, or as long as you can do it that way, I'd prefer to.

Mr. HENDERSON. What are the advantages that run in your mind?

Mr. RENTSCHLER. Well, I like a company, in the first place, that has nothing but the common stock if you can keep it that way. I admit that under certain conditions that might not be at all reasonable.

Mr. HENDERSON. Let me stop on that one point—the advantages of the common stock being what?

Mr. RENTSCHLER. Well, the preferred stock or bonded indebtedness of any kind is, after all, a debt. It isn't a stock; it is something you owe somebody. The same is true in an individual. I'd rather not as an individual owe someone if I can avoid it.

Mr. HENDERSON. Is there a value in the swings of business activity in having common stock as against——

Mr. RENTSCHLER. Well, there is—of course, usually, preferred stock carries with it some obligation to pay, sometimes deferred but usually required in the long run. A company of that kind, under certain conditions, as I say, it is perfectly feasible, I know, but I think if the company can find a way of financing itself and carrying on without the burden of that kind it is preferable.

Mr. HENDERSON. In that case each of the owners in his proportion of ownership is taking a share of the risk. It is a real picture of the enterprise then, isn't it?

Mr. RENTSCHLER. I may not follow things as clearly as the next one, but it is something to me to know if you have 10,000 shares of stock outstanding, or 100,000 shares of common stock, the worth of your company is then very easily determined and it is all on the same basis.

Mr. HENDERSON. What other operating advantages are there to this kind of policy as against an alternative of going to capital markets?

Mr. RENTSCHLER. Well, under certain conditions I think the company, perhaps, is freer in its management of its own affairs. Usually a preferred stock or any bonded obligation requires certain controls or checks on the company's policy.

Mr. HENDERSON. You mean if outside money comes in?

Mr. RENTSCHLER. If outside money comes in, they have the right and the feeling usually that they have some right to follow it up on policy and even to influence policy sometimes.

Mr. HENDERSON. That is just not a guess on your part?

Mr. RENTSCHLER. It is a matter of fact.

Mr. HENDERSON. It is a matter of fact, and that is one thing you escape.

Mr. RENTSCHLER. We escape entirely. Theoretically, our common stockholders elect officers and directors, and it is their company; we control the rest within it.

Mr. HENDERSON. You think, then, it is a fact of common practice, when outside capital is in, not on an equity basis, that some control is exercised in the direction of managerial policies.

Mr. RENTSCHLER. There usually is.

Mr. HENDERSON. So you escape from any direction from outside by this means?

Mr. RENTSCHLER. That is right. That would be my opinion, at any rate.

Mr. HENDERSON. You haven't had any experience of attempted control over your operations?

Mr. RENTSCHLER. We have not.

Mr. HENDERSON. You have been free then to do whatever you wished as far as the amount that you would allocate to research is concerned?

Mr. RENTSCHLER. Yes, sir.

Mr. HENDERSON. Thinking in terms of a much longer term program entirely free from any of the commitments that you would have to make for current earnings and out payments.

Mr. RENTSCHLER. That is right. In the early days of the Pratt-Whitney Aircraft Co. down to the present day, that is absolutely true in our case; there has never been any other outside control.

Mr. HENDERSON. You have worked consciously toward this. You think of it as a policy, as I intimated in the beginning?

Mr. RENTSCHLER. Exactly.

Senator KING. You follow the practice which has been followed in most successful corporations from their beginning; namely, to have two classes of stock, the common and the preferred; and you prefer to keep the preferred stock because, first, you widen the base of interest in the corporation and you don't have any control as you might have if you went to the banks or to underwriters in order to obtain the necessary capital to carry on your enterprise.

Mr. RENTSCHLER. Yes, sir.

Senator KING. You had no difficulties by reason of the success attending your enterprise in selling your preferred stock at a fair price and obtaining the necessary funds for expansion.

Mr. RENTSCHLER. Yes.

Senator KING. So, as I state, that is a common practice, is it not——

Mr. RENTSCHLER (interposing). Very common.

Senator KING. To issue your common stock and your preferred?

Mr. RENTSCHLER. Yes.

Senator KING. There are many advantages in that course rather than in resorting to banks and underwriters to obtain the necessary capital for expansion of your business.

Mr. RENTSCHLER. I think there is.

Senator KING. I want to ask you whether or not you obtained any funds from the Government itself as a bonus or as loans or only such as might be derived from the sale of your products to the Government.

Mr. RENTSCHLER. No; none whatever.

Senator KING. Did the Government buy any of your planes?

Mr. RENTSCHLER. Oh, yes; I should say a great number of them.

Senator KING. Has not the Government been your principal purchaser?

Mr. RENTSCHLER. About 50 percent of our business.

Senator KING. I beg your pardon.

Mr. RENTSCHLER. About 50 percent of the business, I should say, is Government.

Senator KING. And the other 50 is commercial?

Mr. RENTSCHLER. Commercial and export.

Senator KING. Export?

Mr. RENTSCHLER. That is right.

Senator KING. You have exported some planes abroad, have you?

Mr. RENTSCHLER. Probably 25 percent of our gross business throughout the whole period is done in exports.

Senator KING. To what countries, principally?

Mr. RENTSCHLER. Well, world-wide. Most of that, of course, has been for commercial purposes—air lines all over the world.

Senator KING. Is the Government purchasing your planes now?

Mr. RENTSCHLER. Yes.

Senator KING. Do you manufacture anything besides planes?

Mr. RENTSCHLER. We manufacture engines, planes, and propellers.

Senator KING. Engines and propellers.

Mr. RENTSCHLER. Yes; and planes.

Mr. HENDERSON. You sell those to other companies who want to assemble them.

Mr. RENTSCHLER. That is right.

Senator KING. Why did you dissolve your company when part of your activities were engaged in transportation—did the Government require that?

Mr. RENTSCHLER. The Government required that there should be no mail contracts given to air lines who had connection with any equipment companies.

Senator KING. The purpose then was—you preferred to divorce yourself, separate the corporation in order to get the Government contracts for carrying mail.

Mr. RENTSCHLER. No; you see we have nothing to do with the air-line companies at the minute; our business now is entirely manufacturing.

Senator KING. You just manufacture.

Mr. RENTSCHLER. Purely manufacture.

Senator KING. What became of the other companies, that is, the divorced part of the company?

Mr. RENTSCHLER. They are a separate corporation now entirely. One of them is the United Air Lines Transport which is still operating the air lines. The third one is Boeing Co., in Seattle. That, too, is a manufacturing company.

Senator KING. I suppose there is competition in the activities in which your company is engaged.

Mr. RENTSCHLER. I beg your pardon?

Senator KING. I suppose there is competition in the production of the products which come from your company.

Mr. RENTSCHLER. In every way, yes; complete competition.

Senator KING. Is that competition active?

Mr. RENTSCHLER. Very active I should say.

Senator KING. There has been no effort, no purpose, to stifle competition by agreements or by associations or organizations?

Mr. RENTSCHLER. None that I know of.

Senator KING. You attribute your success in part to the fact that you have had free competition.

Mr. RENTSCHLER. Well, I think that is absolutely necessary in any industry; yes, the freest competition.

Senator KING. You haven't felt it necessary then to cooperate with other corporations for the purpose of restricting production?

Mr. RENTSCHLER. None whatever.

Senator KING. Your production has increased?

Mr. RENTSCHLER. From year to year.

Senator KING. I assume your efficiency has likewise been apparent in your activities.

Mr. RENTSCHLER. We think so.

Senator KING. So you are making a better machine now than a few years ago?

Mr. RENTSCHLER. I am sure of that.

Senator KING. You look for continued improvement and for increased efficiency in the activities of your organization?

Mr. RENTSCHLER. Yes; I still believe aviation is just in its infancy.

Senator KING. Are you making large planes and large engines?

Mr. RENTSCHLER. Yes; we make large engines. We have made large planes; we are not making them at the moment but the Sikorsky Co. did make the first of the so called clipper ships.

Senator KING. Have you seen marked improvement in the carrying capacity and the qualities of endurance and lightness of your products?

Mr. RENTSCHLER. Of course that has increased by leaps and bounds; going back to this first engine that we described some time ago, it is quite a different thing than the engine we are building today. Of course, that is true in every detail of aircraft construction. There has been a remarkable improvement and it is still continuing at about the same rate; if anything, accelerating.

Senator KING. With the utilization of aluminum and magnesium you make planes much lighter, do you?

Mr. RENTSCHLER. Very much lighter.

Representative REECE. How much money did you and your two associates, Mr. Mead and Mr. Brown, spend in the preliminary stages before the Niles-Bement-Pond Co. advanced you $200,000 for organizing and developing the company?

Mr. RENTSCHLER. Nothing whatever.

Representative REECE. You only had an idea up to that time?

Mr. RENTSCHLER. Purely an idea. I will say we knew definitely that something would be required or else there was no use starting our idea.

Representative REECE. That period, however, was the critical period and what led to this enlarged development and successful development in which you are engaged at this time.

Mr. RENTSCHLER. Oh, yes; we were absolutely on the spot. We had $250,000 and an opportunity of getting an engine through a test.

Representative REECE. Did you get as much encouragement and sympathy at that time as you have since becoming more successful?

Mr. Rentschler. I think the answer to that would be self-evident.

Dr. Lubin. Mr. Rentschler, is there any arrangement in your industry whereby you cooperate in research activities and development?

Mr. Rentschler. I beg your pardon?

Dr. Lubin. Is there any arrangement in the industry whereby you and other people in the industry cooperate in your experimental and developmental activities?

Mr. Rentschler. No; at least in no sense directly. Everyone in the industry, I think, is in very close touch with the Wright Field and the Air Corps or Langley or the naval air stations and there might be something there, but purely in that way. There is no other cooperation that I know of within the industry.

Dr. Lubin. Are the results of Langley Field, for example, available to you?

Mr. Rentschler. I should say they are available to everyone in the industry at the moment they really have something to disclose, and I think everyone in the industry tries and does keep as closely in touch with Langley as possible.

Dr. Lubin. Is there any way of estimating what the industry itself would have to spend or would have had to spend if these research activities of the Government had not been going on?

Mr. Rentschler. I wouldn't want to estimate it in dollars. I think I can say we have been constantly carrying on research work in the industry, because for the most part Langley has confined their research work to those things of general application. Take, for example, the development of a particular kind of cowling for a certain engine, something once developed that would be applicable with modifications to any form of engine. Now those are all things which require in many cases a great deal of very special equipment. For example, these big wind tunnels. It is almost still beyond the possibilities of a private company to operate a wind tunnel or to have to bear the initial cost of that sort of thing. In that way Langley has been extremely helpful and they have really done a very fine job.

Dr. Lubin. Would it be fair to say that your industry has an advantage, in the sense that other industries don't have, to the extent to which the Government finances certain types of experimental and developmental work which would have had to have been developed by the industry and would, therefore, have required more capital if the Government hadn't undertaken the experiment?

Mr. Rentschler. Well, what probably would have happened is our whole rate of development would have been much slower than it has been; but, outside of finding out things as quickly as we have, waiting, in other words, until we could afford to do certain experiments, we would have delayed the whole development of aviation to that amount.

Dr. Lubin. To that extent the Government has advanced the development of this industry which would have been advanced at a later date.

Mr. Rentschler. That is right. They are all things that had to be done, in other words.

Senator King. Just one question, prompted by Dr. Lubin's. I suppose you have a sort of a research laboratory, do you not?

Mr. Rentschler. Oh, yes.

Senator KING. So that you continue your experimentation with a view to developing improved methods and better products.

Mr. RENTSCHLER. I might answer that in part by saying that the actual figures show that something around 10 percent of the value of our expenditures is put into engineering and research each year.

Senator KING. And you regard the dividends which you derive as compensation for the 10-percent expenditures?

Mr. RENTSCHLER. Ours is an engineering and development industry and the whole success depends upon having the right thing at the right time.

Senator KING. I suppose, aside from patented developments, inventions which are patented, you communicate with persons and organizations engaged in the production of aircraft. Is the risk shared that way among the producers of airplanes?

Mr. RENTSCHLER. The situation hasn't really been of any great importance in engines or in airplanes themselves, at least in the last 10 years. Very early there was this whole situation of the original Wright patents and a lot of complications but those have all run out, fortunately, I think, and at the minute there are no real important patents which go into planes or engines.

We have a lot of patents, but I wouldn't even know what most of them were. They are mostly construction of things or odds and ends of things which an engineering department go ahead and take out patents for, but I wouldn't say there are many of such.

Senator KING. You wouldn't emphasize that patent situation.

Mr. RENTSCHLER. No; I wouldn't.

Senator KING. Do you have any patent litigation?

Mr. RENTSCHLER. We have had small instances, nothing at all serious. Once in a while somebody writes in and thinks he has designed something we are using 2 years before we did, or something of that kind; nothing you can call serious litigation.

Senator KING. This is a broad question and I think you have answered it. You do expect a continued improvement in the science of aviation, if it may be denominated as a science?

Mr. RENTSCHLER. I certainly do.

The CHAIRMAN. Are there any other questions?

Mr. TUPPER. In selecting Hartford as the center of operations for the plant, I suppose you were influenced by the available labor supply, the location of the machine-tool industry in that section?

Mr. RENTSCHLER. That had a great deal to do with it.

Mr. TUPPER. Did you consider any other location?

Mr. RENTSCHLER. In our negotiations with Niles we were limited, of course, to those places where they had idle plants. We didn't, to answer your question exactly, because we began negotiations with Niles and then we found this one in Hartford and were so satisfied with that location that it stopped our inquiry.

Mr. TUPPER. I was wondering whether you were offered any inducements by any cities to locate any particular place.

Mr. RENTSCHLER. None whatever, including Hartford. I don't think anyone in Hartford knew we were coming there until a year or two later.

Senator KING. You were a prophet without honor in your own country.

Mr. RENTSCHLER. Quite.

The CHAIRMAN. Are there any other questions? Mr. Rentschler, we are very much indebted to you and thank you for appearing before the committee.

Mr. RENTSCHLER. I was very happy to come down.

Mr. BROWN. I enjoyed this very much.

The CHAIRMAN. The next witness is who, Mr. Nehemkis?

Mr. NEHEMKIS. The Securities and Exchange Commission calls as its next witness, Mr. Alfred P. Sloan, Jr.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. SLOAN. I do.

## TESTIMONY OF ALFRED P. SLOAN, JR., CHAIRMAN OF THE BOARD, GENERAL MOTORS CORPORATION, NEW YORK CITY

Mr. NEHEMKIS. Will you state your name and address, please?

Mr. SLOAN. Alfred P. Sloan, Jr., 1775 Broadway, New York City.

Mr. NEHEMKIS. You are chairman of the board of directors of General Motors Corporation, are you not?

Mr. SLOAN. Chairman of the board; yes.

Mr. NEHEMKIS. Mr. Sloan, are you prepared to discuss the growth of General Motors during the last two decades, its expansion and the sources of the financing for that expansion, and I should like you particularly to tell the committee of one of the great new developments of your corporation, namely, the Diesel engine. I want you to tell that story, Mr. Sloan, in your own way and in your own words. If you have occasion to refer to any statement or paper, feel perfectly free to ask Mr. Bradley to supply it. His answers to you will be your answers. Will you proceed, Mr. Sloan.

### SOURCES OF CAPITAL FUNDS—GENERAL MOTORS CORPORATION, 1921–1938

Mr. SLOAN. Mr. Chairman, the period that I will deal with is the period ending in 1938, going back 18 years, and I would first like to outline the expansion of the corporation in that period with respect to its motorcar production, as well as with respect to other products which have been developed in that period. And I would like the privilege, if I may, of outlining the way that expansion has been financed.

Dealing with the first question, at the beginning of the 18-year period the corporation had a capacity of about 500,000 motorcars, somewhat less than that. In the intervening period of 18 years, we built up that capacity, so that now we could produce about two and a half million motorcars per year, and of that capacity 90 percent is in the United States and 10 percent is in foreign countries.

In addition to that, as a result of our research work we have developed in two directions, one in making additional devices which have expanded the job opportunities we have, and second, in developing entirely new products which have come out of our research work in addition to our normal motorcar activity.

I might mention two outstanding illustrations of the results of our research work in developing new projects, and these illustrations are quite dissimilar in character. Six or seven years ago we felt that there

was an opportunity for accomplishment in a more intense development of the Diesel-engine idea. We had associated with ourselves a relatively small company, and with that contact through our research activity we have developed a much-improved technique in the application of the Diesel engine, so that today we are making Diesel engines at a low cost and in a low weight relation to power, which is an important factor in the Diesel engine, and have expanded the application of the Diesel engine quite broadly.

For instance, we have as a result of this work developed a Diesel-electric locomotive. It is possible today, to illustrate what has been accomplished, for a railroad to buy a Diesel-electric switching locomotive and, with the savings that result from its operation, to meet the interest charges and also pay back the principal. It is not necessary for the railroad to put up any money. It will return the entire cost in from 6 to 8 years, depending on how extensively the locomotive is used.

We have another somewhat different illustration of what has been accomplished in the expansion outside of our motorcar line, in the development of tetraethyl lead, which has entirely revolutionized the consumption of gasoline in engines, with greater efficiency of the engine, and around that has been built a new industry.

In our Diesel industry at the moment we are employing something like $20,000,000 and, as we are running at the moment, between three and five thousand workers in that industry, which has been created in the last few years.

I might go on and elaborate and use many other illustrations of what we have accomplished in the way of engineering and research. One important difference between the automotive industry and other industries lies in the fact that we revolutionize or entirely change our product once a year, and that involves very heavy expenditures in engineering and in tools.

That would give you a general idea of how we have expanded in the 18 years under review. Now, when it comes to the financing of this expansion program, we have sold in the 18-year period—our sales have amounted to about $17,250,000,000 in the 18-year period. We have made a profit in the 18-year period out of those sales of approximately $2,300,000,000. We have diverted in the last 9 years about 91 percent of our profits to our stockholders in dividends.

In the entire 18-year period we have diverted a little less than 80 percent of our profits to our stockholders. In the 18-year period there has been substantially no outside financing. It is largely financed within ourselves. I say largely; in connection with preferred stock issued back in the late twenties, there was something like $29,000,000 additional stock placed on the market which increased our capital to that extent.

Also in the twenties, about 1926, there was a consolidation with an organization which had been an important supplier, amounting to about $55,000,000, which brought that much property and for which stock was issued, but practically no cash.

Now, taking the amount of our profits less the amount paid out in dividends, there has been retained in the business through the profit rule during the 18-year period about $490,000,000. There has been obtained through depreciation $520,000,000. There are some addi-

tional amounts which are quite inconsequential when we are dealing with such large figures.

Now, of course, when it comes to the depreciation it is possible to some extent to use depreciation for expansion, but naturally the time must come, if it is really depreciation, when it must be used for replacing properties to maintain its efficacy.

We have in addition, too, insofar as expansion of plant and equipment is concerned during the 18-year period, spent $770,000,000 in expanding our plant. As I said, in the additional things we are making as well as increasing our motorcar capacity per se, we have also invested $176,000,000 in subsidiary operations of various kinds, manufacturing abroad, financing operations, and in other directions.

We have also an item here of about $335,000,000 which covers expenditures for special tools during the period.

The CHAIRMAN. Mr. Sloan, I regret very much that it is necessary for me to leave at the moment. I have to be on the floor of the Senate, but Senator King will preside.

Mr. SLOAN. I will repeat that. We have a special item of $335,000,000 covering expenditures for special tools. In our industry, as I remarked before, we bring out a new model every year, and this amount of $335,000,000 really represents expenditures we make in the capital goods industry. They are passed on to the customer in cost of sales and returned to us in a period not to exceed 2 years, more often 1 year, but that is quite a contribution to the capital-goods industry, and it also has the advantage of keeping our products up to date, which is very essential in keeping up with the constantly advancing technique.

I was interested in a statement that was made before your committee—I think it was on Tuesday—regarding the point that the automobile industry had reached the stage of stabilization.[1] I don't know whether that is true or not, but I really don't believe it is because today there are more motorcars in use in this country than there ever have been before and it would appear as if, from past history, we could expect a further expansion of the industry in relation to the increase in income of the country.

I have a curve here which is very interesting and shows that relationship.[2] Now, also, we find that there is a very direct relationship between the Federal index of production and the trend of our business, so I feel that if ways and means could be found of expansion of the income of the country, that it is reasonable to suppose that the automobile industry could enjoy its share.

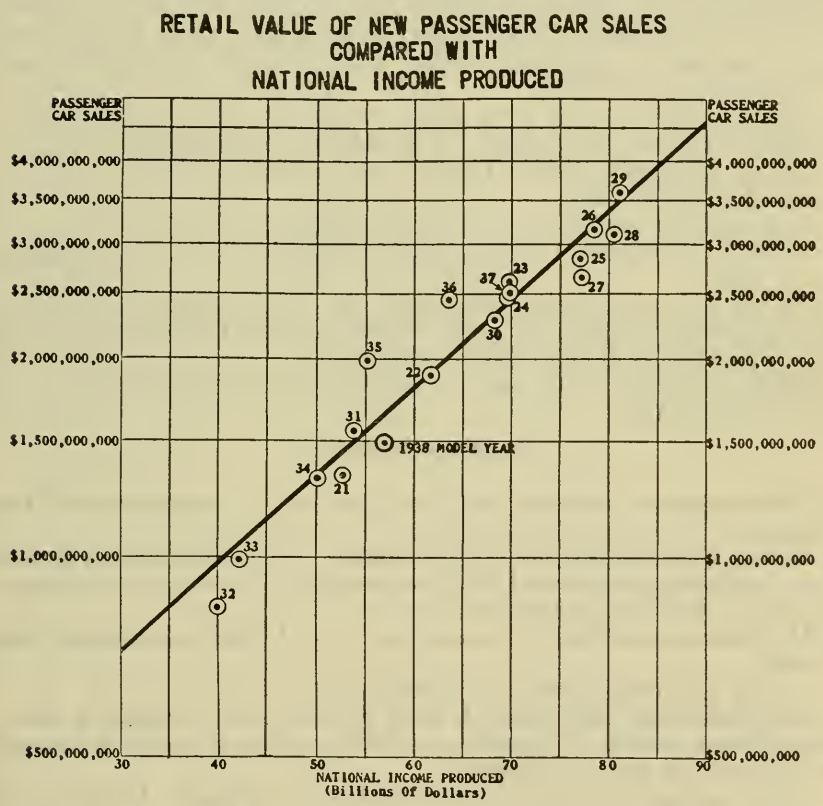
I would like to show you this because it is very interesting. I can't seem to locate it, but there is a direct relationship and as the national income goes up we go up with an increasing rate and I see no reason why that should not continue. In other words, I don't think we have reached the point of saturation of our industry, especially if we are able through capitalizing technological improvements to keep on reducing the cost or adding to the value.

I would like to point out also that in the evolution of our industry, so far as our price position is concerned, our policy has been

[1] See supra, p. 3513.
[2] See "Exhibit No. 570," infra, p. 3653.

to manage to keep increasing the value of the car rather than to reduce the price of the car. I don't think that would be sound economically unless there was some special circumstance. Of course, I think industry has got to work toward lower prices to maintain productivity, and through capitalizing technological improvement to raise wages and at the same time reduce price. But in the case of our industry, we are quite different because we have what we call the used-car situation and our real objective in maintaining the price with better value, capitalizing our technological program that way, is to make those that can afford to buy, dissatisfied with their last year's product, trade it in, and pass it down in the used car market so that we are really producing a better value all the time. But it is very difficult to determine just what improvement has been made in that particular.

EXHIBIT No. 570




Because of the fact that each year's design of car is quite different from the previous year, there is no yardstick of value. We use the price per pound to some extent and if you look at it from that standpoint, why in the period that we are talking about the price per pound, on a pound basis that the consumer pays for a 1939 motor car as compared with one in 1913, it is about half as much;

and in our records the price of a Chevrolet in 1913, that the consumer paid, was about 50 cents a pound. Today it is about half of that. And in addition to that there has been a tremendous value put into the car that is represented by increased weight and in greater convenience.

Now that in brief is our story. I might add that notwithstanding the tremendous advance that the industry has made in giving increased value, we have the amount of labor per car which has not been greatly decreased because we have added so much to the car. We have things like independent springing, and innumerable devices have been added to the car, which have maintained the man-hours per car; and at the same time through more intensive design have made it possible for us to reduce the price.

For instance, the Chevrolet car in 1913—I just happen to have that figure—would cost a purchaser about $1,150; it weighed about 2,200 pounds; it had about 31 horsepower. The Chevrolet car of today costs about $750; weighs more than 3,000 pounds; and is 85 horsepower and is infinitely better in the quality of its development and the features that lead to speed and comfort and convenience and safety, and all those kinds of things.

Now that gives in a brief way our picture as represented by a survey of this 18-year period. I would like to present that chart.

Acting Chairman KING. You desire that in the record?

Mr. NEHEMKIS. Yes.

Acting Chairman KING. It may be received.

(The chart referred to was marked "Exhibit No. 570" and appears on p. 3653.)

Acting Chairman KING. Mr. Sloan, the bell has rung; some of us are compelled to adjourn to the Senate and the House and we will take a recess now until 2:30 this afternoon.

(Whereupon at 12:05 noon, a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:35 p. m. on the expiration of the recess.

Acting Chairman REECE. The committee will come to order, please. Are you ready to proceed, Mr. Nehemkis? The witness has completed his principal statement?

Mr. NEHEMKIS. That is correct, sir, and I wish to examine him briefly.

Acting Chairman REECE. You may do so.

Mr. NEHEMKIS. Mr. Sloan, I want to ask you to identify a statement before I offer it in evidence. Will you look at this statement and identify it for me, please?

This statement has been identified by the witness. I offer it in evidence. The title of this statement is "General Motors Corporation and Subsidiary Companies, Summary of Principal Products Currently Sold."

Acting Chairman REECE. It may be admitted.

(The statement referred to was marked "Exhibit No. 571" and is included in the appendix on p. 4028.)

Mr. NEHEMKIS. Mr. Sloan, will you be good enough to identify this statement before I offer it? This has been identified. I offer in evidence a statement entitled "General Motors Corporation, Disposition of Funds Statement, Years 1921, 1938, inclusive."

Acting Chairman REECE. It may be received.

(The statement referred to was marked "Exhibit No. 572" and is included in the appendix on p. 4031.)

Mr. NEHEMKIS. Mr. Sloan, will you be good enough to identify the statement now shown you? The statement has been identified by the witness, which I offer in evidence, and is entitled "Summary of Information, Question 8, Table 4."

Acting Chairman REECE. It may be received.

(The statement referred to was marked "Exhibit No. 573" and is included in the appendix on p. 4033.)

Mr. NEHEMKIS. Will you identify the statement now shown you, please? The statement has been identified. I offer in evidence a statement entitled "Summary of Information, Question 7, Table 3."

Acting Chairman REECE. It may be received.

(The statement referred to was marked "Exhibit No. 574" and is included in the appendix on p. 4035.)

Mr. NEHEMKIS. Mr. Sloan, I want to ask you a few questions based on the information which was submitted to us by the General Motors Corporation. Your research expense since December 1925 has been over $170,000,000, is that correct?

Mr. SLOAN. That is correct, but in order that it may be understood, I would like to make an explanation.

Mr. NEHEMKIS. Please do, Mr. Sloan.

Mr. SLOAN. The research expense in our operation should be considered as divided into two parts. In the first place there is research per se, I might say, or pure research, where we develop new devices and products from a fundamental standpoint. Then there is an engineering type of research, which is involved, as I explained this morning, in the production of new models yearly.

What you have there is the complete cost over the period, though I believe there are 5 years that were omitted in that, but anyway it is the complete cost of all our engineering involving our changing of models from year to year, and our research in addition.

Our research expense, pure research, runs about one million and a half to two million dollars per year.

Mr. NEHEMKIS. Subject to the statement you have made, however, you accept the figure?

Mr. SLOAN. I accept the figures with the explanation.

Mr. NEHEMKIS. Correct, and that expense likewise was paid out of your earnings and deducted from your gross income for income-tax purposes; is that correct?

Mr. SLOAN. Exactly.

Mr. NEHEMKIS. Between 1921 and 1938, both inclusive, your return to the informal questionnaire which we had occasion to submit to you indicates that your net sales were over 17.1 billions of dollars. Is that substantially correct?

Mr. SLOAN. That is substantially correct.

Mr. NEHEMKIS. I would take it that that meant a lot of jobs and a lot of wages; would you agree?

Mr. SLOAN. It certainly does.

Mr. NEHEMKIS. Are you prepared to discuss briefly what that volume of sales meant, let us say, to the petroleum industry? How did that affect the relationship of your corporation to petroleum?

Mr. SLOAN. Well, of course, that would have to be dealt with in very general terms.

Mr. NEHEMKIS. Just generally and very briefly.

Mr. SLOAN. Of course, when we put out into the domestic market a million and a half to two million motor cars, why it means the impact of that on the economy is very important from the standpoint of what, in the first place, the making of the cars involves. You could then add a third more, which is the stimulation arising from the distribution of cars. And all this stimulation is before the impact on, say, the petroleum industry. Then, of course, there is the consumption of gasoline and everything else that goes to the maintenance of the car. It would be impossible to answer that question in definite terms. You could say that it was a very great stimulation.

Mr. NEHEMKIS. You have indicated sufficiently, I think, the answer. Would you say that the net sales of the seventeen billions to which I have just referred had a profound effect upon governmental investment in terms of highway construction?

(Senator King took the chair.)

Mr. SLOAN. I don't know as I understand your question. Of course, the development of a proper highway system is essential to the operation of the increasing number of cars on our roads.

Mr. NEHEMKIS. You understand my question precisely, Mr. Sloan.

Mr. SLOAN. I would say that I think that if we are going to continue as we are, and according to my belief, to make, not the same number of cars we have but still more cars, the question of highway is very important, because it may develop into what you might call the neck of the bottle type. It is very important. I think today probably more cars could be consumed if we had, especially in our congested areas, a better system of highways. But the impact of that on the railroads, and everything else, is of course tremendous.

Acting Chairman KING. The more cars you manufacture, the more gasoline and oil are consumed, and the more highways are constructed, the more wear out and the more need repairs, so there is a very great increase in productivity along the various lines by the production of your cars.

Mr. SLOAN. You could say unquestionably, for as I remarked before, if you take that $17,000,000,000 and add a third to it, it will give you an idea of what is involved in purely the distribution of that $17,000,000,000.

Mr. NEHEMKIS. And I would take it, Mr. Sloan, that that seventeen billions of sales has had a profound effect upon the building industry in opening up areas for development which were otherwise inaccessible.

Mr. SLOAN. I don't think anybody can appreciate, unless he has made a study of it, the effect of the increasing use of motorcars on our method of living. Especially as you say the opening up of areas outside our cities is really providing what I think is a better means of living, not necessarily a higher standard, although I think it is in a way a higher standard.

Acting Chairman KING. You mean, therefore, that a motorcar is not a luxury alone but it is a necessity.

Mr. Sloan. It certainly is.

Mr. Nehemkis. And I likewise assume, Mr. Sloan, that all of that $17,000,000,000 of sales depended upon the existence of a consumer capacity to absorb that output. In other words, a vast amount of those sales were made on the installment payment plan, is that correct, sir?

Mr. Sloan. A substantial part of them. It varies considerably from year to year. The percentage of cars sold that you referred to on the installment plan is somewhat declining at the moment, and curiously enough the percentage sold on the installment plan declines very materially in bad times. It increases in good times. But that is an important factor in our ability to maintain our production.

Mr. Nehemkis. You have an affiliated or subsidiary company, do you not, which is engaged in the business of financing your output?

Mr. Sloan. Yes; that is the General Motors Acceptance Corporation. We also have an affiliate dealing with the insurance phase of it.

Mr. Nehemkis. Would it be a correct statement, Mr. Sloan, to say that General Motors is in a position today to do most of its internal financing out of earnings, and, in addition, to finance the ultimate consumers of your product as well?

Mr. Sloan. I think that is a correct statement of fact—I mean in a practical sense. One could imagine what certainly doesn't seem at all likely, a tremendous expansion when it might get beyond our capacity, but if things continue in a reasonable way, the way we expect, that is true.

Mr. Bradley gives me a note that G. M. A. C. borrows from the banks. We do not, but General Motors Acceptance Corporation does. I am sorry I omitted to point that out. We do not in the corporation, but the finance company, General Motors Acceptance Corporation, does, and I should say about 25 percent of the funds we use in financing the consumer through the General Motors Acceptance Corporation is their capital derived from a dollar investment basis; the balance is the borrowing. I am sorry I overlooked that.

Acting Chairman King. That means that three-fourths of the value of the cars which you sell is paid through the company?

Mr. Sloan. It isn't exactly that. Of the cars the corporation sells, they are all paid for in cash to the corporation. The automotive industry is done on a 100-percent cash basis. In turn, the dealer who sells the car, if he sells it to the consumer on time, finances it with some finance company. He is not required to finance with General Motors Acceptance Corporation even if he is a General Motors dealer. He is a free agent to finance with whom he chooses.

Where cars are sold by General Motors dealers on an installment plan, we have about 70 percent of that business, but that doesn't represent 100 percent of the business because, as I said before, a considerable quantity of the cars are sold for cash. And I might make the observation that that has been particularly true in the last year or so where the banks have been seeking opportunities to invest their money and they have been going direct to the consumer and extending credit. So that appears on our records as a cash transaction, although the consumer, instead of financing through a regular finance company, organized for the purpose, gets his money from the bank. Do I make it plain?

Mr. NEHEMKIS. Mr. Sloan, may I sum up briefly one point from your testimony this morning? Would it be a fair statement to say that the General Motors Corporation today is virtually a self-contained unit in the sense that it has little or no need at this time to go to the public markets for its financing?

Mr. SLOAN. That is absolutely correct.

Mr. NEHEMKIS. I have no further questions of this witness.

### CAPACITY AND RELATION OF OUTPUT TO CAPITAL REQUIREMENTS—GENERAL MOTORS CORPORATION

ACTING CHAIRMAN KING. Are there any further questions?

Mr. HENDERSON. Mr. Sloan, this morning I believe you testified that for about 18 years that self-sufficiency had been maintained.

Mr. SLOAN. That is substantially correct. You are speaking from the standpoint of the outside financing?

Mr. HENDERSON. Yes.

Mr. SLOAN. That is correct.

Mr. HENDERSON. And in that period I believe you testified also that you had been increasing your assets?

Mr. SLOAN. Substantially so; yes, sir.

Mr. HENDERSON. And then, as I recall, your plant-account valuation now is lower than it was in 1929?

Mr. SLOAN. I don't know just the reference to 1929. That might be so because of the effect of depreciation; if you take the net, that might be so.

Mr. HENDERSON. You haven't spent all your depreciation, in other words. You have testified on that this morning, I believe. You said that the time was coming in real depreciation where you must use it for expansion.

Mr. SLOAN. What I meant by that was this: Supposing we start out with new machinery where the first year or two we receive cash from sales to use for the depreciation but since our machinery is new, we don't need to spend money on it, so we can use the money for something else. The point I make is that the time must come finally when we have to reinvest the cash in new machinery to maintain our efficiency.

Mr. HENDERSON. You have a certain elasticity about that?

Mr. SLOAN. Up to a few years, until you sort of get an average term of life.

Mr. HENDERSON. And you do attempt each year, when you are laying out your prospective program of sales, to estimate what the volume of sales will be related to national income, as I understand?

Mr. SLOAN. No; we don't exactly do that. The relation of sales to national income sort of follows after the fact. The way we do that is that we try as best we can to judge the general business trend, and then we lay down, establish, what we call a corporation index, which is the expectancy for the model year, which may begin this year, say, October 15.

Then our production schedules, our initial production schedules for the first month or so are related to that index. As we begin to get the trend of consumers' sales that are reflected to us by our reports from our dealers, we then have a basis of fact upon which to alter our estimate.

Mr. HENDERSON. Do you have a chance in that period to do any more tooling up?

Mr. SLOAN. No; we can't.

Mr. HENDERSON. That is what I am getting at. You spoke this morning of your contribution to the capital-goods industry in the way of machinery, and you spoke of how you are making a very substantial contribution every year or two. But at the beginning of any period you have to make a businessman's guess as to what degree of tooling up you will do in order to carry your estimate of what the year's production would be.

Mr. SLOAN. That is correct. As a matter of fact today, say the first of June, substantially all our program for 1940 is pretty well crystallized and we have got to take a position. But when you say tooling, we must distinguish tooling which is the item I have referred specifically to this morning as applicable to a current model from tools on which the tooling operates. You understand the distinction?

Mr. HENDERSON. Yes; surely.

Mr. SLOAN. Now, of course, therefore if you have a capacity, say a fundamental capacity, for domestic production, say, of 2¼ million cars, that is represented by buildings, machinery, and what not, but when it comes to the special tools to which I referred this morning, there is a great deal of flexibility in it. For instance, you have spent a lot of money for buying a die and the capacity of that die in terms of volume has a great deal of flexibility so that we are not so much concerned with the specific tooling cost with respect to any year's business, because there is so much flexibility.

Mr. HENDERSON. What would you say now in terms of what your high productions have been. As I recall, 1936 and 1937 were the only years in which you passed the 2 million mark on passenger cars and trucks.

Mr. SLOAN. That is right, that is, if you include production of foreign manufacturing subsidiaries we hardly made the 2 million mark if we are considering domestic production.

Mr. HENDERSON. I know, but you have a way of computing the parts you sell abroad in terms of what your actual production is.

Mr. SLOAN. Exactly, but we consider anything that we sell from an export standpoint as part of our production scheme, but you understand that we have a capacity abroad of about 10 percent of our total capacity, or substantially two hundred fifty, maybe three hundred thousand cars that has nothing to do with production in the United States. It is an entirely different type of car.

Mr. HENDERSON. Yes; well what would you say as to the current automobile production year as to your capacity to produce? Is it as large as it was in terms of 1936 and 1937?

Mr. SLOAN. Yes; I should say it was. I should say it was. In other words, let me be sure I understand your question.

Mr. HENDERSON. Maybe I could go a bit further. If there was a very sustained and increased demand for cars for the balance of this year, which would run at the rate at which you ran in '36 and '37, could you meet that without much more investment in plant capacity or in tools?

Mr. SLOAN. Yes; we could because, as a matter of fact, the time element would prevent further heavy investment because, as you see at the moment—here it is the 1st of June—our problem, as you know,

of course, is to liquidate everything that we have preparatory to the new model which will go into production in about 60 days, so that in answer to your question I think I should say that we couldn't change our capacity very much now or our output because we are too close to the time we are going to change over our models—you get the idea I am sure. But normally, if you asked that question in January, say, then I would say that we could increase our production quite substantially if the trend changed.

Mr. HENDERSON. Now, you had about 1,800,000 or 1,900,000 cars in 1929 and over 2 million in 1936, and in 1937. In 1937 the national income was around 70 billion as against 1929, when it was 80 billion. In other words, you had a larger volume in 1937 with a lower national income than you had in 1929 with a higher income, which tends to support what you said this morning, that you are directly correlated with national income.

Mr. SLOAN. I think we are.

Mr. HENDERSON. I think the statement that was made about the automobile industry reaching the stage of stabilization was not in terms of the actual output of cars, but was in terms of the plant investment and capital expenditures necessary to produce what was in the range of expectancy of any larger area, getting out of the range of the abnormalities.

Mr. SLOAN. I think that is a perfectly correct statement of fact.

Mr. HENDERSON. In other words, we could have considerable expansion of automobile production without your plants having to be expanded very, very largely and your tooling expanded.

Mr. SLOAN. May I make a remark there?

Mr. HENDERSON. Certainly.

Mr. SLOAN. I am inclined to think that it would be logical to assume that our productivity would increase not only with the national income but faster than the national income, because if we increased the national income—and nobody knows better than you do that we are increasing the spread between the necessities of life and the income, of course more goes to the luxuries. That is in my judgment our big problem.

Mr. HENDERSON. And that is the time also when people choose to buy new cars and to drop the old models they have been continuing to use?

Mr. SLOAN. That is right. The relationship can be established between the annual income and the consumption of motorcars—perhaps I should say the sales of motorcars—by the consumer; and it indicates that in times of declining in the business, when we are going down in the business cycle, we drop below the national income because of the fact that people are conservative and they run their cars longer. They reduce the total car mile inventory they have in their present cars. Conversely, when the economy begins to go up and we are increasing production, then we run ahead of the national income, because people who have not bought and whose demand for cars has been retarded; then go into the marget and buy. That has been evident for over 20 years. You probably know more about it than I do.

Mr. HENDERSON. Well, suppose there was a recapture of the 1929 national income. Have you given consideration as to how large an expansion in plant over and above what you have now would

be necessary to carry what your estimates would be of your demand in that year?

Mr. Sloan. No; we never have. No; we never have. We have never had occasion to. As I remarked before, there is a very great deal of flexibility in our productive capacity as influenced by the number of hours a day that we run. By that I mean that we don't figure our capacity on the basis of 365 days or anything like that. We have certain amounts of time out for change in models. And then another thing, due to the large—due to the important value of a motorcar and due to the fact that the consumer demands four times as many cars some months as he does the others, the seasonal trend, which is very difficult to contend with, but at the same time you have to meet that situation—there is a very great deal of flexibility. Business is increasing and we can put in the low months more cars into the hands of the dealers; there is a tremendous flexibility there.

Mr. Henderson. Would you say that the prospects of meeting an $80,000,000,000 a year, for example, would indicate you might have to alter your 18-year record of not going to the capital markets for financing, or would you be able to handle the expansion that would come from internal funds?

Mr. Sloan. I am quite certain that we can handle anything that you have in mind. I think, in answer to your question, from the internal funds without going into the money market, if that answers your question.

Mr. Henderson. That is the question.

Mr. Sloan. The answer is yes.

Mr. Henderson. And you would have in that case some expansion in the amount of business you would give to the capital-goods industries in the way of tooling up, but there would be——

Mr. Sloan. There wouldn't be very much in addition to what we have to tool up anyway, because of the great flexibility in the particular form of tooling that you are talking about. I mentioned the die question; that is the type of thing. There is so much flexibility in that that I think that we could reach that point without any great difficulty. As a matter of fact our contribution to the capital goods industry—and I realize the tremendous importance of that—is from the standpoint of these special tools; it varies more from the standpoint of the type of engineering program that we have, what parts we change, than it does from the volume of any particular period—did you get that point? What I was saying was that the amount of tooling that we do for a specific model is more importantly affected by the changes incidental in that particular model over against the other, than it is the volume of cars contemplated through the use of those tools in the following year. Do you get that point?

Mr. Henderson. Yes; that would mean, as I gather, that the capital-goods, the durable-goods industries, if they are to be utilized at anything like their normal capacity, have to look either to new developments such as your refrigerator and Diesel-engine business or have to look to the outside?

Mr. Sloan. I think that is true, except for this point—that we in General Motors are very strong believers in capitalizing to the fullest possible extent we can the technological progress, and we have a program that is always going on whereby our different plants not only have the authority but are responsible for discarding equip-

ment where they can buy new equipment and make a return that justifies it, so that this process with us is going on constantly.

Mr. HENDERSON. The practice you spoke about this morning of recapturing within 2 years through your sales the value of new equipment means enormous contributions to the capital-goods business?

Mr. SLOAN. That is right. That means—as I remarked this morning, our engineering programs from year to year—and I again repeat to make it clear, don't vary so much from the volume expectancy as from the character of the program. They vary from 25 to 40 million dollars a year and that is a correct contribution to the capital goods industry, even if we take it out of the economy through cost of sales within a year or two.

Now in addition to that this frequently happens. When we change a model we not only require tooling but we frequently have to go into the capital-goods market for machinery to support the tools, due to the fact that the design is different. Do you get my point?

Mr. HENDERSON. Yes. I have concluded my questions on this part of the testimony. I think you introduced this morning in your discussion your price policy on reduction as it was distinguished from the general policy of industry. That is, of course, a necessary part to this expansion that you have talked about, but the discussion of industrial price policy does not come within the frame of reference of this presentation before the committee as it has been planned. We are here concerned with the employment of savings and investment and at some other time——

Mr. SLOAN (interposing). I mentioned that incidentally because I want to say that I don't think there is anything more important in promoting progress and in stimulating economy than capitalizing technological progress, because it is the only way we can afford to pay higher wages and at the same time get lower prices. We have to have both those things.

Mr. HENDERSON. I don't think you and I are going to have much of an argument on that.

Mr. SLOAN. I am glad of that.

Dr. LUBIN. Mr. Sloan, I was very much interested in your discussion this morning of depreciation and the function that depreciation plays. In fact, I think you specifically stated that the time comes when you must replace your equipment to keep it as efficient. In other words, you don't necessarily invest your money in the next day or next year, but there is a time when you must replace that equipment. Now in your industry very remarkable technological changes have occurred in the last 10 years; new steels, new cutting steels, for example; the development of new techniques.

Mr. SLOAN. Tremendous.

Dr. LUBIN. Now, in order to replace a given type of machinery and, of course, one can't generalize, but in order to replace certain equipment today as compared to say 15 years ago with the investment let us say of $1,000, would the machine you replace today produce more and better product than the one you would have gotten for $1,000?

Mr. SLOAN. Unquestionably. It is astounding the progress that has been made.

Dr. LUBIN. And would it be fair to conclude, then, that in order to get the same output per machine today you would have to invest less than you would have invested let us say 5 or 10 years ago per unit?

Mr. SLOAN. I think in some cases that would be true to some extent; yes. I think that would be true. Of course, in our case—in our industry the type of machinery changes so rapidly with the design of the car that it is awfully hard to answer that question, but I would say that there has been tremendous progress in increasing the output. I would say, however, that we are talking in very general terms, of course. But my judgment would be that in a majority of cases the machine would probably cost more, but you would get much more output from the standpoint of a certain amount of output. I don't know as a total you would find you had less number of machines, each one costing more, but with the increased output possible, I think it would not necessarily involve any increased capital expenditure in terms of capacity, but I am dealing in awfully general terms.

Dr. LUBIN. What I am trying to get your opinion on is whether or not taking in an industry that moves as rapidly as yours does in the terms of the type of equipment that you use, whether we can look for a situation where less and less of your depreciation account will have to be invested to maintain the capacity that you discussed this morning.

Mr. SLOAN. No; I don't think so. I think, as I tried to explain awhile ago—I think up to a certain point we can do that, but when we get to a certain point we have got to reimburse to maintain the efficiency of our equipment.

I know that you must know that it can be fairly stated that the metal working production equipment of the United States is obsolete. I think you know that, and you know, probably, of that study that was made back in 1935, I think—maybe '36, although I think it was '35, when a careful survey was made and it was shown that something like 70 percent of the metal working equipment of that time was 10 years old. Just see what a wonderful thing it would be if we could stimulate the replacement of the new for the old. We get lower costs, we get a better-quality output, and we free employment to the capital goods industry, that you know should absorb half of the unemployment.

Dr. LUBIN. The special thing I am interested in knowing is whether or not if you did replace that 70 percent of equipment, it would cost as much to replace as has been written off over a period of years.

Mr. SLOAN. I think it could cost a little more but not a great deal of difference, dealing, as I said before, in very general terms.

Dr. LUBIN. One more question. I don't know whether you can answer it for the industry as a whole.

Mr. SLOAN. I will try to.

Dr. LUBIN. In your opinion, do you feel that the capacity of the industry with its present investment is such as to meet any reasonable expectation of demand for automobiles?

Acting Chairman KING. You mean his plant alone?

Dr. LUBIN. The industry as a whole.

Mr. SLOAN. I would say the answer is "Yes," but of course, as you appreciate, it doesn't work out that way because we have the

most intense competition. For instance, we have increased our position in the period I am surveying, of 18 years, from 15 percent of the domestic consumption to 45 percent, and of course in the distribution of the business, if somebody is smart enough to get a lot more, he might not have enough capacity. If you ask on the industry as a whole, I would say the answer is definitely "Yes."

Dr. LUBIN. With the exception of changes you normally have to make in the model, the present investment in the industry is sufficient to take care of any reasonable demand.

Mr. SLOAN. I think it is.

Acting Chairman KING. By reason of your strong development, there has been considerable mortality along the pathway of automobile consumption, has there not?

Mr. SLOAN. It is perfectly astounding to look over the record of, you might say, the dead ones up to 1925.

Acting Chairman KING. So there has been a great loss of capital in the automobile industry.

Mr. SLOAN. Those eliminations were principally in the very early stages of the industry, and they have not been so prevalent in the last 20 years. Further than that, the amount of capital lost wasn't as much as one would think when one considers the situation in terms of the present, for this reason. In the earlier days, when those casualties took place, the different companies were very poorly integrated. What I mean is that at that time many of the manufacturers were purely assemblers. They had practically no machinery at all. They bought their parts and put them together, so at the end of a model run they had practically nothing left except an empty assembly plant, so the casualty from the standpoint of capital loss was not important, although the number involved was very big.

Acting Chairman KING. Yes; going over the list of automobile companies of the past 15 or 20 years——

Mr. SLOAN (interposing). But the capital involved has not been large. In our case we make practically everything ourselves, but that wasn't true in those cases.

Acting Chairman KING. There is more capital invested in the automobile industry today than there was 5 or 10 or 20 years ago, is there not?

Mr. SLOAN. I would say unquestionably so.

Acting Chairman KING. And the output is much greater than it was then.

Mr. SLOAN. No; the capacity is bigger, and the output in 1937 in this country was big.

Mr. HENDERSON. I wanted to get at this point again to assist Dr. King——

Acting Chairman KING. Don't call me doctor; you are the doctor.

Mr. HENDERSON. This constant investment in plant that you make every year by reason of the tremendous increase in technology, and so forth, in effect substitutes for the investment of capital that was going on in the early years, doesn't it?

Mr. SLOAN. Yes; I think it would be an offset.

Mr. HENDERSON. There was quite a loss of initial dollar volume, but the great investment in the automobile industry has been constant every year in this tooling that took place.

Mr. SLOAN. When you say that, you mean the contribution to the capital goods industries, because you realize that is not a fixed investment, in a way. We call it in our parlance deferred expense. It comes back inside of two years, because it is put into the cost of the sale. You see, the distinction is this: In developing the cost of goods where you have machinery and buildings, you take into the cost, as you know, depreciation, which perhaps is 10 percent, or whatever it may be. In the case of this specific tooling for the model, we take 100 percent in within the first, or certainly less than 2 years. Do I make myself clear?

Mr. HENDERSON. Yes; the point I was making, there was quite a loss of dollars to investors in these companies Senator King spoke of, in terms of the capital investment of companies that have not survived, that is very, very great annually.

Mr. SLOAN. That is true.

Acting Chairman KING. I was about to ask you in view of the fact that there was mortality and loss of capital, there has been a very large investment in the automobile industry as a result of the mortality and the development of the industry, so that there is more invested in the automobile industry today, perhaps, than at any period in the history of our country.

Mr. SLOAN. I don't think there is any question about that.

Acting Chairman KING. Do you see the field sufficiently broad and inviting to invite additional capital in the automobile industry, either through expansion or through development of some segment of the industry?

Mr. SLOAN. No; as I have already stated, I don't think that we can look for any additional investment in the automotive industry from the standpoint of general expansion, as we speak of it, more capacity to make more cars, because we have a slack which I have already pointed out, which would take care of a considerable expansion over and above what we now have. I think we can look forward to important contributions from year to year in the way of new machinery and contributions to the capital goods industries, because as far as I can see now, I see no end to our advancing technology which has characterized our operations in the last 15 or 20 years.

As long as we are aggressive and intelligent and that sort of thing, I think that we can continue that. In other words, I don't see the end of that type of thing in sight. Now that manifests itself either in a better car for the same money or less car for less money. It depends on what the policy may be.

Acting Chairman KING. You are developing, are you not, what might be denominated auxiliaries to your important manufacturing line?

Mr. SLOAN. We are doing that all the time. For instance, I might mention one item that comes to my mind. As you know in the last 3 or 4 years the radio has become quite an important feature in the motorcar. Now we have a radio industry. We make our own radio on which we employ quite a large number of people.

Acting Chairman KING. So you don't confine your activities to the manufacture of automobiles?

Mr. SLOAN. No; we are very thoroughly integrated. We make practically all the parts of the cars ourselves. As a matter of fact, in the automotive industry, as you would, of course, recognize if you

stopped to think of it, the responsibility of a supplier is so great because the volume is so great that you have to have a very close relationship between the supplier and the manufacturer and the evolution of that is that the supplier eventually becomes part of the manufacturer.

Acting Chairman KING. Isn't your depreciation very great as a result of your changing your models so frequently, as I understand you have to change your models every year?

Mr. SLOAN. No; the depreciation isn't affected by that. That comes out in the amount that I have referred to this morning that we have just been discussing here where we charge into the cost of the product, this special tooling. That comes out through cost of sales in a year or two, but the depreciation continues from year to year practically on a normal basis because of the fact that the machinery and the buildings, the obsolescence and the depreciation is pretty constant irrespective of volume. So our depreciation in General Motors now is running about $45,000,000 a year.

Acting Chairman KING. I had in mind when I made that inquiry a statement I read a few years ago made by Mr. Ford that one of the changes he had made cost him $50,000,000.

Mr. SLOAN. I should think it would cost him easily $50,000,000. When I say changing our lines, I don't mean to say that we are building a line in the beginning because we may change it—we don't very often start it all over again; it would be almost impossible to do that—but even the changes that we make in General Motors sometimes involve a cost for those changes, outside of the engineering I mean the tooling alone, outside of the organization as high as $40,000,000.

Acting Chairman KING. How many employees have you in all your plants?

Mr. SLOAN. We have about 200—roughly speaking—we have about 200,000 wage earners and we have about 45,000 salaried employees. That is substantially correct.

Acting Chairman KING. Is that the largest number of employees?

Mr. SLOAN. No, sir; we have been up in terms of wages to 235,000. I don't think our salaried employees vary very much from what it now is, perhaps 5 percent, but our wage workers have been up considerably beyond the 200,000 figure because our business today is considerably off what it was, for instance, in the years 1936 and 1937. Of course that reflects itself in a reduced number of workers.

Acting Chairman KING. Has any plan been devised to cushion the unemployment?

Mr. SLOAN. We have given a very great deal of consideration to that. In the first place, we tried to bring out the new models that I keep talking about at that time of the year which gives the best continuity of employment. I don't think we yet are thoroughly agreed to what is the best time of the year. We used to bring out our new models the first of January. That was the official time. Then it was moved to November 15. Then this year it was moved to October 15. My own opinion is that from the standpoint you are asking about, Senator, the best time to bring out the new models is the first week of December. However, that is one thing we have done. In addition to that we build an inventory of component parts in the off season when the consumer demand is low in order to

keep continuity of employment, and in addition to that we have a plan whereby at the beginning of the year we guarantee our workers a weekly wage equivalent to 60 percent of their normal wage, figured at their hourly rate at 40 hours per week, which is our standard. Now that means that if we get to the time of the year when business slacks off, not necessarily due to a change of the business trend, but from the standpoint of the time approaching when we must liquidate everything and come into this new model, and when hours fall down to less than 60 percent of normal, or less than 24 hours per week, we make up the difference in the form of a loan, and that is returned to us when, as, and if the corporation gives that worker employment and not if the corporation is unable to do that—in other words, what I am trying to say is that every one of our workers who has a 5-year service with us can make his plans at the beginning of the year with the surety that every week in that year he will receive 60 percent of his normal wages, and he is under no obligation. If he should die, it is canceled. If he should leave the corporation's services it is canceled and he only pays us back when he has work in excess of 24 hours per week to the extent of half the excess.[1]

For instance, if he gets up to 36 hours, then he gives us back 6 of them. Do I make myself clear?

Acting Chairman KING. Of course your corporation hasn't asked for any capital but from your observation you would think there is capital for investment—plenty of capital for investment in promising enterprises or for the expansion of existing enterprises?

Mr. SLOAN. Well, I think that there is plenty—I think there is probably plenty of capital available. I think we all would recognize that, but I think that—well, let me explain—let me say this on that point. I think it is very difficult to get entirely new enterprises started because in the first place you have to have a certain amount of capital and then you have to carry the enterprise through an interval of time that my associate, Mr. Kettering, calls the "shirt-losing time" and that means that you have heavy losses—you take for instance my remark this morning on the Diesel engine development of ours. We have great faith in that in the future. It is already furnishing job opportunities and it has made a contribution, I think, as I remarked this morning, to the railroad situation, but we have made very little money so far on that because we are putting so much money back in engineering and development, and all that sort of thing, that it eats into our expense account so that we may be some time. I mentioned also this morning the development of tetraethyl lead as a very important contribution toward the petroleum industry, and its effect in relation to the automobile industry. We lost millions of dollars before we got that on its feet. Now, I think that is a very big problem, although I didn't come down here to offer a receipt or formula for recovery, because I think that the weakness of the present situation today—I am only repeating what many have told you—is the lack of confidence in the future profit-making possibility of industry.

[1] Mr. Sloan subsequently advised the Committee that the figures given by him in this connection all deal with the Income Security Plan which applies to workers with 5 or more years' service. A similar plan, the Lay-Off Benefit Plan, but with less liberal benefits, applies to workers having from 2 to 5 years' service.

I don't think that—I am not speaking personally. I am speaking purely in the interest of economy; that is everything to me. The personal point is entirely inconsequential, but I do think that we have to have more profit in industry. I think one of the reasons why the automotive industry is so virile and strong is it can do these things and analyze technological progress, and all that sort of thing, and because it has had down through the years a reasonable profit margin. I may be wrong about that but that is the way I feel about that. I think we have to encourage industry to make money and we have to encourage people to put money into industry and I think we have to make it more flexible, so people can move what money there is in one type of thing into another.

I think a lot can be done in that general direction that will stimulate these new things. I was looking over the record of our new things because I thought some questions might be asked about them and you will find that you frequently have to go through several years. Take in the case of that tetraethyl lead, we not only lost millions of dollars before we got it on a paying basis, but we put millions of dollars into the research work before we ever got it at all.

Acting Chairman KING. The profit motive, then, stimulates investment?

Mr. SLOAN. As long as we have the profit motive, we have to respect it.

Acting Chairman KING. That is all.

Dr. LUBIN. Mr. Chairman, may I question him? Mr. Sloan, could you tell us what the present investment of General Motors is in automotive plant; that is, parts, bodies? [1]

Mr. SLOAN. Segregating that from everything else—I don't know whether I can pick that out.

Mr. ALBERT BRADLEY (vice president, General Motors, Detroit, Mich.). Excluding such stuff as——

Dr. LUBIN. Including parts.

Mr. BRADLEY. Excluding the financing, about 700 million net; usually 70 percent of our total.

Dr. LUBIN. Plant and equipment only.

Mr. BRADLEY. We haven't that.

Mr. SLOAN. We haven't that segregated; I will see that you get it.

Dr. LUBIN. I would appreciate it awfully much if you could give us the figure of your investment and plant for equipment.

Mr. SLOAN. Applicable to motorcar industry and including the parts that we make that go into the motorcar, per se; is that right? I will see that you get that.

Dr. LUBIN. And could you give us those same figures for, let us say, 1927, 1928, 1929, and 1936, 1937, and 1938?

Mr. SLOAN. I will be very glad to do so.

Mr. BRADLEY. 1927 to date?

Dr. LUBIN. Yes.

Mr. BRADLEY. Investment in physical motorcar facilities and not working capital.

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[1] General Motors Corporation subsequently submitted these figures, under date of May 23 and June 14, 1939. Both letters appear in the appendix on p. 4139.

Mr. SLOAN. You wanted growth as well as depreciation stood up against it?

Dr. LUBIN. That will be all right.

Acting Chairman KING. Mr. Sloan, we thank you very much for your contribution to this study which is being made by the committee. Call your next witness.

Mr. NEHEMKIS. Dr. Oscar Altman, please.

Acting Chairman KING. Dr. Altman, do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Dr. ALTMAN. I do.

Mr. HENDERSON. You will identify the witness, Mr. Nehemkis, and will you explain the general nature of the testimony he is about to give?

Mr. NEHEMKIS. I shall, Mr. Commissioner. There has been evidence, Mr. Chairman and gentlemen of the committee, to show that corporations by accumulation of resources out of earnings make savings. We have heard that in the case of the Steel Corporation, in the case of General Electric, and, this morning, in the case of the United Aircraft Corporation and the General Motors. Dr. Altman will be asked to give further evidence along these lines. I ask leave of the committee to read Dr. Altman's qualifications into the record.

Dr. Altman has been head of the banks, trusts, and research section of the assessor's office of Chicago, Ill., and has been a member of the department of economics of Ohio State University, and is the author of numerous studies in the field of taxation. Dr. Altman, you are presently connected with the Investment Banking Section of the Securities and Exchange Commission?

Dr. ALTMAN. I am.

## TESTIMONY OF DR. OSCAR L. ALTMAN, INVESTMENT BANKING SECTION, SECURITIES AND EXCHANGE COMMISSION, WASHINGTON, D. C.

Acting Chairman KING. How long have you been connected with the S. E. C.?

Dr. ALTMAN. Since September of last year.

Acting Chairman KING. Prior to that what were you doing?

Dr. ALTMAN. I was a member of the department of economics of Ohio State University.

Mr. NEHEMKIS. The statements I read about your professional background are correct, are they not?

Dr. ALTMAN. They are correct.

Mr. NEHEMKIS. Have you discussed the testimony that you are about to give with me and my associate, Mr. Kelley?

Dr. ALTMAN. I have.

Mr. NEHEMKIS. Notwithstanding that association and the discussions you have had, does the evidence that you are about to present to the committee embody your own considered findings and conclusions?

Dr. ALTMAN. They do.

Mr. NEHEMKIS. Were the charts to which you will refer prepared by you or under your direction?

Dr. ALTMAN. They were.

Mr. NEHEMKIS. Are they based upon published statistical data which you believe to be authentic and reliable?

Dr. ALTMAN. Yes; they are.

Mr. NEHEMKIS. Are you prepared to testify with respect to corporate savings, devices by which such savings are made, and their effects on the investment and securities market?

Dr. ALTMAN. Yes.

Mr. NEHEMKIS. Will you proceed, Dr. Altman, calling as you go for the charts and tables you wish to illustrate and support your remarks?

### SIGNIFICANCE OF INTERNAL FINANCING

Dr. ALTMAN. I have been asked to present material this afternoon on the overall aspects of business and internal financing. My presentation is designed to supplement and generalize the material on corporate financing, both external and internal, that has been presented to the committee during the past day and a half. Business internal financing is important because a study of the problem will indicates two things: First, how much money is available to corporations and business enterprises generally from internal sources; and secondly, to what extent these business enterprises need to tap the new savings of the nation in order to make their necessary expenditures and carry on their necessary activities.

I have neither the time nor the qualifications to discuss business financing in all its aspects nor in all its details. With the committee's permission, I should like to delimit the questions and to consider only the financing of business expenditures for fixed assets, in other words, the financing of expenditures for plant and equipment.

Acting Chairman KING. For plant development and expansion too?

Dr. ALTMAN. For plant development and expansion, and for plant itself and for equipment.

I thus propose to deal with long term investible funds. I shall leave aside that part of the question which concerns the financing of current assets. This omission is the less serious because current assets are usually financed by current liabilities (that is to say, by bank credit, loans, accounts payable, advances, and the like), while, on the other hand, fixed assets are financed by stocks, bonds, and funds raised from internal sources.

The financing of investment in fixed assets—plant and equipment, that is—and the importance of internal financing may be discussed under two headings: the first, how much do business enterprises spend each year and how much do they spend on the average on plant and equipment; and the second, how do they obtain the funds to pay for these investments. Internal financing is important in financing these investments because, to the extent that enterprises so finance, they do not need to draw upon the new savings of individual and institutional investors, and they need not have recourse to the capital markets of the country.

Before going further in this discussion, I should like to recall to the attention of the committee the precise meanings of the terms used in discussing the financing of fixed assets.

A business receives most of its funds for long-term investments from three principal sources. First, external sources. A business

enterprise may sell stocks or bonds to investors. These investors may be individuals, or they may be institutions charged with the savings of individuals, such as insurance companies, savings banks, and the like, or they may be commercial banks. Second, internal sources. A business may retain part of its profits. These savings, together with depreciation and depletion allowances available from current operations, are available for investment. Third, sale or conversion of assets. A business may collect its accounts receivable, reduce its inventories, and draw down its cash balances, and use the funds obtained in this way for the purchase of plant and equipment. Thus the three principal sources of funds for financing fixed asset expenditures are external sources, internal sources, and conversion of assets.

The testimony heard during the preceding two days on four large corporations in as many important industries has indicated, I think, that internal sources are by far the most important source of funds for financing investments in plant and equipment. The same conclusion can be drawn from a study of all business enterprises, though not to the same degree.

### CAPITAL EXPENDITURE AND REPLACEMENT

Dr. ALTMAN. During the period 1923 through 1929, the estimated expenditures for plant construction, machinery, and equipment, by all incorporated and unincorporated business enterprises, including agriculture, averaged $8,500,000,000 a year. In this connection, I am using a series of expenditures compiled by George A. Terborgh of the Board of Governors of the Federal Reserve System and introduced into the record by Dr. Laughlin Currie in his testimony.[1] These expenditures reached a high point of $10,045,000,000 in 1929. On the average, approximately 44 percent of these totals went for construction of plant and 56 percent went for investments in machinery, equipment, and other capital goods.

In this connection, I offer for the record a table having the title, "Terborgh's Estimates of Business Gross Capital Formation, Excluding Inventories—1921–1938," and showing the distribution of this total by the percentage going for construction and the percentage going for durable goods.

Mr. NEHEMKIS. Mr. Chairman, I offer into evidence the table just identified by the witness.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 575" and is included in the appendix on p. 4036.)

Mr. NEHEMKIS. Will you ask the reporter to mark that "Exhibit 1," please?

Dr. ALTMAN. The major part of these expenditures was not made for additional plant. On the contrary, the major part went to replace plant and equipment which was worn out or discarded. It has been estimated that during the period 1923–29 more than 65 percent of all the plant that was built and all the machinery and equipment that was produced went to make good the wear and tear on the existing business plant.

In this connection, I should like to offer for the record a table having the title "Business Gross Capital Formation, Capital Con-

[1] See "Exhibit No. 547," supra, p. 3524.

sumption, and Net Capital Formation" again excluding inventories, for the period 1919 to 1937.

Mr. HENDERSON. Will you repeat that 65 percent figure again, Mr. Altman, I didn't get it?

Dr. ALTMAN. That 65 percent of all the construction of plants and all the construction of machinery and equipment went for replacement purposes during this period 1923 to 1929.

Mr. HENDERSON. In order, in other words, to keep the stock of plant and equipment intact.

Dr. ALTMAN. Yes.

Mr. HENDERSON. Rather than for adding to the stock.

Dr. ALTMAN. Exactly.

Acting Chairman REECE. But at the same time, was the plant capacity increased by reason of those replacements to which you refer?

Dr. ALTMAN. With your permission, I should like to postpone my answer to that question, because I discuss it a little bit later in my testimony.

Mr. NEHEMKIS. Mr. Chairman, I offer into evidence the table just identified by the witness.

Acting Chairman REECE. It may be received.

(The table referred to was marked "Exhibit No. 576" and is included in the appendix on p. 4036.)

Dr. ALTMAN. This is not to imply that each new machine was exactly the same as the machine which it replaced, nor that each new building was a duplicate of the old. Each new machine and each new building was the best that could be purchased. In this sense, in terms of the dollar values of the physical plant and equipment, we may say that during the years 1932–29, 65 percent of the amount of money spent for plant construction, machinery, and equipment was used, broadly speaking, for replacement purposes. Only 35 percent of those expenditures resulted in any addition to our productive plant.

Between 1929 and 1933 the value of new plant construction and the value of machinery and equipment produced fell by more than 75 percent, or from 10.0 billion in 1929 to 2.3 billion in 1933. From 1931 through 1934 our volume of plant construction and of machinery and equipment production was insufficient to replace the plant and equipment that wore out. In each of the years 1932 and 1933 the amount of plant and equipment produced was approximately 2 billion less in value than the amount worn out. By 1937, however, the value of new construction and plant equipment had increased to 7.5 billion, of which two-thirds went for replacement, while one-third represented an addition to our plant.

The high ratio of business investment that represents replacement rather than addition to plant has two important consequences.

First, to the extent that business enterprises set aside depreciation and depletion funds, they need not seek money from the capital markets to pay for their new plant and equipment. In an economy such as ours, where approximately 65 percent of the business capital goods produced goes for replacement purposes, it is not surprising that earned depreciation and depletion allowances are the largest and steadiest source of funds available to business. Every businessman includes

among his expenses an item to cover the value of his plant and equipment used up during the year. In the case of plant, machinery, and equipment this charge is called depreciation; in the case of natural resources that are used up, such as coal and oil, the charge is called depletion. In any case, no corporation is said to earn a profit, whether for income-tax or general accounting purposes, unless it not only makes enough to meet all its expenses, but in addition is able to set aside a fund large enough to cover the wear and tear on its investment. These funds so set aside are available for reinvestment. If the particular business enterprise holds its place in the industry, it reinvests these funds itself. If the business is liquidating, it does not reinvest these funds. Instead, it may retire its outstanding securities; or it may turn these funds over to some other enterprise that is expanding, by means of the purchase of securities; or it may return funds to its investors in the form of dividends.

Second, we all know that building construction and machinery output fluctuate sharply from prosperity to depression, much more sharply than do consumers' goods. We like to explain this by saying that in some years we expand our plant and in other years we do not. But it is necessary to note that in some years we don't even replace the plant and equipment which wear out. It is important to stress this point.

In some years we simply do not replace the plant that wears out.

Mr. HENDERSON. What were some of the years that we did not?

Dr. ALTMAN. In 1932 and in 1933 we failed by $2,000,000,000 each year to replace the plant and equipment that wore out, but there were four years during the depression when we did not replace the plant and equipment that wore out.

In this connection I should like to offer for the record a table called "Estimated Business Expenditures for New Durable Goods (Excluding Inventories) and Business Depreciation and Depletion Allowances, 1920–1937." From this table we see that the years in which we failed to replace the plant and equipment which wore out were 1932, 1933, 1934, and 1935.

Mr. NEHEMKIS. Mr. Chairman, I desire to offer in evidence the table just identified by the witness.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 577" and is included in the appendix on p. 4037.)

Dr. ALTMAN. When a business enterprise sets aside a million dollars as depreciation on its existing plant and equipment, and does not invest this million dollars in new plant and equipment, new plant and equipment in general are not produced. The enterprise is disinvesting plant and machinery. If the business uses this money to increase its bank account, to pay off its accounts payable, or to retire existing bonds, there may be no immediate corresponding increase in the production of other goods. If the business enterprise pays out the depreciation allowances in the form of dividends to its stockholders, the business is again disinvesting, but the immediate results are different.

Paying out depreciation allowances in the form of dividends helps to sustain consumer purchasing power. On the other hand, to the extent that depreciation allowances are used in this manner, the net

effect upon the economy as a whole during a depression is to stimulate the production of goods designed for the consumer, and to induce a sharp decline in the production of plant and equipment. In other words, the net effect of paying out depreciation allowances is a small increase in the production of consumer's goods and a great decrease in the production of plant and equipment.

Mr. HENDERSON. Wait a minute. That payment out, rather than increasing the amount of consumers' goods beyond the previous period, would just prevent it from falling lower?

Dr. ALTMAN. Yes.

Mr. HENDERSON. Isn't that what happens on the down curve?

Dr. ALTMAN. That is to say, consumer outlay does not fall as sharply as it otherwise would because it is sustained by the paying out of depreciation allowances to individuals who own parts of corporations.

Mr. HENDERSON. They have to be paid out?

Dr. ALTMAN. Yes; they must be paid out.

Mr. HENDERSON. When they are paid out they are not called depreciation allowances in accounting terms?

Dr. ALTMAN. No; they would be paid as dividends or something similar, or they might be called interest on bonds.

Mr. HENDERSON. You are speaking of the accounting source of such dividends.

Dr. ALTMAN. Yes; I am.

### DEPRECIATION AND DEPLETION ALLOWANCES

Dr. ALTMAN. Now, I should like to turn to the question: How large are depreciation and depletion allowances? The reports of the Bureau of Internal Revenue on all nonfinancial corporations, compiled in the Treasury Department's annual Statistics of Income, indicate that annual depreciation and depletion allowances increased steadily from 2½ billion dollars in 1920 to 4.1 billion dollars in 1930. In 1936, the last year for which data have been released, they were $3,500,000,000. It has been estimated that depreciation and depletion allowances were approximately $3,700,000,000 in 1937.

For the record I should like to submit at this point a table called "Compiled Net Profits, Dividends, Depreciation, and Depletion of All Nonfinancial Corporations, 1923–1927."

Mr. NEHEMKIS. Mr. Chairman, I offer into evidence the table just identified by the witness. Perhaps the years should be repeated by me at this time. The years mentioned in the caption of the table are 1923 through 1937. Is that correct, Dr. Altman?

Dr. ALTMAN. That is right.

(The table referred to was marked "Exhibit No. 578" and is included in the appendix on p. 4037.)

Acting Chairman REECE. If you haven't done so, would you mind stating what you mean by nonfinancial institutions.

Dr. ALTMAN. Nonfinancial institutions would exclude such businesses as banks, insurance companies, savings and loan associations, and the like.

The depreciation and depletion allowances for all business enterprises in the United States are naturally greater than those for corporations alone. Data compiled by Dr. Fabricant for the National

Bureau of Economic Research indicate that depreciation and depletion allowances for all business enterprises, unincorporated as well as incorporated, doubled from 1920 to 1929. They rose from 2½ billion in 1920 to 5.1 billion in 1929. Dr. Fabricant estimated that depreciation and depletion allowances for all business enterprises were 4.3 billion in 1935 and 4.6 billion in 1937.[1]

The latter figure of 4.6 billions is a preliminary figure and is introduced into the record at this point by special permission of Dr. Fabricant and of the National Bureau of Economic Research.

What accounts for the great increase of depreciation and depletion allowances from 1920 to 1929?

INCREASE AND SIGNIFICANCE OF DEPRECIATION AND DEPLETION ALLOWANCES

Dr. ALTMAN. The growth in the amount of capital invested in plant and machinery, and thus subject to depreciation, accounts for part of the increase. But the most important factor in this increase is a more general realization than has ever before existed in this country of the importance of depreciation and depletion as business expenses. More than ever before, businessmen realize that unless a business earns enough to set aside a sum sufficient to replace plant and equipment as it wears out, the business is operating at a loss. No small elements in driving this home have been the spread of income tax accounting standards, the growing importance of the profession of accountancy, and the influence and requirements of our regulatory commissions. In addition, businessmen are becoming increasingly aware of the rapidity of technological change. They recognize that as new and better machines are developed, as more efficient methods of plant and lay-out of construction are devised, the economic life of business plant and equipment becomes shorter, even though the physical life of these objects may remain the same. Hence, there is an increased awareness among businessmen of the importance of getting their money back in a shorter time; that is, of increasing depreciation allowances.

The prevailing business practice is to base depreciation allowances upon original cost. The annual depreciation charges, for the most part, are computed on a straight-line basis. That is to say, the depreciation charged in any year is the same, and is equal to the cost of the machine or the plant, minus whatever the scrap or salvage value may be at the end of its expected useful life, divided by the length of that useful life.

As a result, depreciation allowances are much more stable than industrial production (although depletion allowances, of course, naturally fluctuate with production). Industrial production, as measured by the index of the Federal Reserve Board, declined by more than 36 percent between 1929 and 1933, whereas, during the same period, depreciation declined by little more than 15 percent.

In further contrast to the relative steadiness of depreciation and depletion allowances on an original cost basis, have been the changes in the costs of plant construction, machinery, and equipment. The cost of replacing plant and equipment fell sharply after 1929. It was approximately 12 percent lower in 1935 than in the period

[1] See "Exhibit No. 577," appendix, p. 4037.

1921–29. Even the increase in the costs of plant and equipment after 1935 left replacement costs below those of 1921–29.

Mr. HENDERSON. What do you base that on?

Dr. ALTMAN. I mean to submit for the record—well, perhaps I can discuss it at this point. I base the falling costs upon indexes of the prices of business capital goods as computed by the National Bureau of Economic Research for capital equipment and as computed by the American Appraisal Co. for construction costs, and these indexes, together with other indexes covering other business outlays for plant machinery and equipment of different types, have been weighted and put together by Dr. Fabricant into what he calls a weighted index of durable goods and construction costs.

Mr. HENDERSON. That would mean then, Dr. Altman, that if a company maintained its cash position through a disinvestment process, or shall we say without paying out dividends in the decline of '2$ to '33, and by conversion of its inventory into cash, as many did, if it chose in 1933 to use its accumulated depreciation account to buy equipment for replacement, it could do it on about a 12-percent-less-cost basis.

Dr. ALTMAN. Even better than that. It could do it at 20 percent less than it could in 1929. The 12 percent refers to 1935.

Mr. HENDERSON. 1935 when the real movement for replacement was re-instituted, that is the first year in that series when we actually began to add to plant and equipment.

Dr. ALTMAN. That is right, when we actually began to add to it. We could replace it at a lower cost then than we could have built it in 1929.

Mr. HENDERSON. Have you the figure of what the cost was in, say, '36 and '37?

Dr. ALTMAN. The index I have here indicates that, taking 1929 as 100, the index in 1935 stood at 88. In other words, in 1935 the cost of replacing plant and equipment was 12 percent below 1929. In 1936 it stood at 90, which is to say that the cost of replacement was 10 percent below what it had been in '29. There was a sharp rise in prices in 1937, but even so the index did not quite go back to 100; it stood at 98½ percent so that you have a 1½ percent differential even in 1937, after a recovery of prices in capital goods and construction costs. You have a differential of 1½ percent in 1937 as compared with '29.

Mr. HENDERSON. Do you have there what was the accumulated unspent depreciation account from '29 through '36?

Dr. ALTMAN. No, I do not; but I mean to discuss in just a moment the relationship between the prices on which depreciation is computed and the costs of replacing equipment. May I put that off for the moment?

May I offer for the record the table from which I have just been reading, which is called the "Indexes of Prices of Business Capital Goods, 1920–1937"?

Mr. HENDERSON. You consider the National Bureau of Economic Research the best economic agency of its kind in the country?

Dr. ALTMAN. I would consider this work the best of its kind.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the table just referred to.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 579" and is included in the appendix on p. 4038.)

Dr. LUBIN. May I interrupt at this moment? I don't know whether you feel you are in a position to answer this question, but if you are I should appreciate it. In looking at this table on the estimated business expenditures,[1] I note in the year 1937 these expenditures for new durable producers goods were less than in any year in the twenties except 1922—'21 and '22. Despite that fact, however, the price that was charged for this equipment was only 2 percent less than in 1929 when you had your peak. Can one conclude from that that the prices of producers' goods went up in 1937 almost to the level of 1929 although in terms of the volume of investment and demand of those goods there was a considerable decrease as compared to the preceding high period?

Dr. ALTMAN. Yes; I think one can say that.

Mr. NEHEMKIS. Will you proceed, Mr. Altman?

Dr. ALTMAN. Since original costs are higher than replacement costs, the depreciation charges exceed the sum needed to replace the particular items of plant and equipment which are being depreciated. This is in reference to the discussion we have just terminated.

May I offer for the record here a table called the Index of Prices of Business Capital Goods for Replacements and for Depreciation Charges, for the period of 1930 to 1937?

Mr. NEHEMKIS. Mr. Chairman, I think a correction should be made in the years mentioned by the witness. They should read 1920 through 1937. I request the table identified by the witness be admitted to the record.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 580" and is included in the appendix on p. 4038.)

Mr. NEHEMKIS. Will you proceed, Dr. Altman?

Dr. ALTMAN. This general discussion I have concluded was designed to deal with the general question of the relationship between the prices on which goods are being depreciated and the prices at which the goods are being replaced. Now to the extent that the prices which are serving as the basis for depreciation are higher than the prices of the goods when they are being replaced, to that extent the business is more and more able to replace its equipment and have something left over. Consequently——

Mr. HENDERSON. It happens, though, that when they buy, according to the recent experience, the price is almost as high.

Dr. ALTMAN. Only in 1937, and even then there was a slight saving in the replacement of equipment.

Mr. HENDERSON. But there wasn't a substantial volume bought at the lower prices?

Dr. ALTMAN. Only in 1935 and in 1936. During the depression the effect of the price saving was lower than one might have expected, because the volume of capital goods bought during those years was quite low.

Dr. LUBIN. May I ask a question about this last table that you presented; in the index of prices of business capital goods I notice in one of your columns you have the heading "Prices Underlying

[1] See "Exhibit No. 577," appendix, p. 4037.

Business Depreciation Charges," and then you have in the next column "Replacement Costs," and you have a ratio between the two. Have you any data which averages these figures? In other words, property that was purchased in 1921, when the index was 39, was being depreciated during the whole decade. On the other hand, property purchased in 1922, when the index was 90, was being depreciated, and similarly property purchased in 1929, when the index was 100, was being depreciated during the following decade. Now, have you any data which averages these figures so that you can get some conception as to what the real relationship was between the costs of equipment and the replacement costs?

Dr. ALTMAN. May I explain, Dr. Lubin, the computation of the first column of figures called "prices underlying depreciation charges"? Those figures are averages. They are the averages to which you refer, and they reflect the prices of the goods purchased in any given year which were being depreciated in a subsequent year. That is to say, when we see a figure of 100 in 1929, that figure of 100 means that it is based upon the prices of all the goods which were being depreciated in 1929, whether they had been bought in 1921 or in 1925 or in 1927. So that what you have here is a weighted average of all the property that was being depreciated as of any given year.

Dr. LUBIN. Thank you.

Acting Chairman REECE. When the depreciation rate is decided upon; the plant management makes an estimate of what the replacement cost will be when the time for replacement comes about. How can the management determine with accuracy what the replacement cost is going to be? It will be affected by economic conditions that might obtain at that time. Now, sometimes prices—the replacement cost will rise; then under other circumstances it will go down. It happened during the period to which you referred that replacement costs have declined.

Mr. HENDERSON. Maybe I could help the chairman with that. The American Appraisal Co. is constantly making just such estimates of the cost of replacement of equipment purchased in the previous period for certain companies.

Dr. ALTMAN. Mr. Henderson, may I address myself specifically to one particular point that I think comes in here, in addition to the one you made? I am not quite sure, and if I am not right this discussion is not to the point, but it seems to me that the question as raised seemed to imply that depreciation charges were computed on replacement cost. Now, it doesn't make any difference to the management what the replacement cost will be 5 years hence. When they buy a machine today what they do is invest $100 in a machine; they decide that the machine will last 5 years and they then charge $20 each year as depreciation. It doesn't make any difference whether that machine will sell for $80 five years hence, or $100 five years hence; nobody knows.

Mr. NEHEMKIS. Will you proceed, Dr. Altman, unless the Congressman has further questions?

Acting Chairman REECE. You may proceed.

Dr. ALTMAN. Consequently only part of the depreciation allowances need to be reinvested to maintain capacity.

This decrease in the amount of investment required—and I will deal now with the information contained in the last table offered in evidence—this decrease in the amount of investment required to main-

tain productive capacity is being accentuated by research and technological progress. These factors are continually increasing the physical productivity of a dollar's worth of investment. The available evidence indicates that this increase in productivity has been accelerated since 1929. For example, there has been an increasing utilization of large capacity equipment in the electrical, power, and other industries; a growing importance of measuring, controlling, and recording devices: and improvements of physical and chemical composition of metals and other raw materials.

These factors combine to create the present situation: reinvestment of part of the present depreciation allowances will maintain productive capacity. Business can invest all of its depreciation allowances only by expanding its productive capacity.

### BUSINESS SAVINGS

Dr. ALTMAN. The second most important internal source of funds for building plant and buying equipment is business savings.

Mr. NEHEMKIS. May I interrupt, Dr. Altman, before you proceed, unless you had intended immediately thereafter to do so; what do you mean by business savings?

Dr. ALTMAN. I mean to define that immediately. Business savings are the amount of money left in the hands of a business enterprise after paying all the expenses of production, including rent, interest, wages, taxes, and so forth, and after payment of dividends to preferred and common stock holders. In the case of unincorporated business enterprises savings are equal to the amount left in the business after the payment of profits to the owners.

Acting Chairman REECE. Now, what is the difference between what you denominate as business savings and the item in the balance sheet called surplus and undivided profits?

Dr. ALTMAN. The item surplus and undivided profits may or may not be composed of savings which are retained as business savings.

Acting Chairman REECE. But would business savings be included in those terms?

Dr. ALTMAN. Yes; business savings would result in an increase in some type of asset that the particular enterprise had and an increase, on the other side, of undistributed profits and surplus.

Acting Chairman REECE. But in our accounting practice, would they regularly be included in those terms?

Dr. ALTMAN. They would be carried to surplus at the end of the fiscal year; yes.

Mr. NEHEMKIS. Dr. Altman, another way of putting it would be to say, would it not, that business saving is a synonym for the terms used by the chairman?

Dr. ALTMAN. No; I don't think so. I would say that business saving is one of the elements which at the end of the fiscal year creates or goes into the surplus which the chairman has been discussing.

Acting Chairman REECE. Now, is that a term common to accounting practice?

Dr. ALTMAN. I have used the term business savings here in a very general sense to include two types of savings. When you deal with corporations you call them undistributed profits, and they at the

end of the fiscal year are carried to the surplus and undivided profits account. In the case of unincorporated business enterprises, the terminology is not quite so good, so that I have simply used the over-all term business savings to indicate the amount that is retained in the business after the payment of expenses and after the payment of dividends and so on.

Mr. NEHEMKIS. Will you identify that for the record?

Dr. ALTMAN. A table called "Business Savings For All Nonfinancial Enterprises, Capital Gains and Capital Losses For All Nonfinancial Corporations, and Adjusted Business Savings For All Nonfinancial Enterprises, 1922–37."

Mr. NEHEMKIS. I offer in evidence the table just identified by the witness.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 581" and is included in the appendix on p. 4039.)

Dr. ALTMAN. During the period from 1923 to 1929 the average yearly business savings of all enterprises, as computed by the Department of Commerce, was $2,200,000,000. In 1929 the business savings of all nonfinancial enterprises; that is, all businesses except banks, insurance companies, finance companies, and the like, was $2,900,000,000. Business savings fell sharply after 1929, and reached a low of minus $8,771,000,000 in 1932. They were negative in each of the 5 years from 1930 through 1934, and amounted to minus $25,200,000,000.

Mr. NEHEMKIS. What do you mean by the term "negative"? What does that mean?

Dr. ALTMAN. I mean to discuss the significance of this at a later point. I would appreciate permission to postpone that.

Acting Chairman REECE. One of the members suggested that "negative" meant less than nothing.

Dr. ALTMAN. I would like to postpone to a later point the significance of such negative business savings. At this point it seems preferable to indicate that business savings have not returned to their predepression level, although they amounted to $1,300,000,000 in 1936 and $840,000,000 in 1937.

Mr. HENDERSON. Dr. Altman, isn't that figure often confused with the idea that these negative savings were actual cash out-payments by corporations?

Dr. ALTMAN. They were no such thing, Mr. Henderson.

Mr. HENDERSON. Isn't it often confused?

Dr. ALTMAN. Yes; I think I have seen misconceptions of that sort around.

Mr. HENDERSON. These did not represent any additions to the money flow that was available to consumers?

Dr. ALTMAN. Well, to some extent they did, and to that extent—but I mean to discuss that a little bit later. I am sorry I am in the position of saying that everything is going to be discussed later. If I haven't done so, I will be glad to return to any of these questions.

In this connection I think it is worth while pointing out that when you say there were considerable business savings in some years, and that there were negative business savings in other years, we should not be misled into thinking that all corporations made money in good years and all corporations lost money in bad years. In this

connection I am offering for the record three tables [1] dealing with the undistributed profits, depreciation, and depletion of all nonfinancial corporations, of those nonfinancial corporations which had a net income and of those nonfinancial corporations which had no net income. The summary data in these tables are presented in this particular chart,[2] which deals with net profits, after taxes and after dividends, plus depreciation and depletion allowances of nonfinancial corporations.

It is clear from the chart that even in the years of prosperity—what we commonly think of as prosperity now—from 1923 through 1929, there was a considerable number of corporations that had losses. I do not mean to imply that the same corporations had a loss each year throughout the period. One year a corporation may have been in the profit column; the next year it may have been in the other column.

Mr. HENDERSON. That chart would show in the line above zero, the profits of corporations that reported net incomes, and the red line below the zero line would indicate the net losses of corporations which had losses in those years.

Dr. ALTMAN. Not only net losses, Mr. Henderson, but it would include those corporations which for some reason or other may have earned their depreciation and depletion allowances and paid these out in the form of dividends.

Mr. HENDERSON. This chart, then, in the terminology of net profits, is after dividend payments?

Dr. ALTMAN. After dividend payments, after taxes, and plus depreciation and depletion, or to use the terminology which runs throughout my paper, the blue bars at the top indicate the amount of business savings available for reinvestment by the corporations that had a net income, whereas the red lines at the bottom indicate the amount less than zero that corporations had after paying taxes and dividends and taking into account depreciation and depletion.

Mr. HENDERSON. It is a measure of the difficulty they might have had in making capital investments?

Dr. ALTMAN. Well, I think in considerable part these corporations were not contemplating making capital investments because they were paying out depreciation and depletion as earned, though in some part the depreciation and depletion may not have been earned.

Mr. HENDERSON. Would it be possible that a corporation, which had a loss and therefore was represented in the red, might have had from previous periods depreciation allowances which would have been available, in case it chose, for the buying of equipment?

Dr. ALTMAN. Oh, yes.

Mr. KELLEY. Will you identify these by title?

Dr. ALTMAN. The three tables that underlie this particular graph I call "Undistributed Profits, Depreciation, and Depletion of Nonfinancial Corporations, for the years 1923–1937"; then, "Undistributed Profits, Depreciation, and Depletion of Net Income Nonfinancial Corporations, for the period 1923–1935"; and "Undistributed Profits, Depreciation, and Depletion of No Net Income Nonfinancial Corporations." In other words, all the nonfinancial corporations are sepa-

[1] Entered later as "Exhibits Nos. 582, 583, and 584," see appendix, pp. 4039 and 4040.
[2] Entered later as "Exhibit No. 585," see infra, p. 3683.

rated into two groups; those that made an income and those that didn't, and these three tables deal with all the corporations as a group, with those that had an income, and with those that didn't have an income.

Mr. NEHEMKIS. May I offer these? I desire to offer the tables just identified by the witness into evidence.

(The tables referred to were marked "Exhibits Nos. 582, 583, and 584," and are included in the appendix on pp. 4039 and 4040.)

Mr. NEHEMKIS. Mr. Commissioner, may I ask your indulgence for one moment? I want the witness to clear a point for the record.

Acting Chairman REECE. Those exhibits may be admitted.

Mr. NEHEMKIS. Dr. Altman, earlier in your discussion the acting chairman asked if you would give a definition of nonfinancial corporation. The record shows that you have given a definition of financial corporations. Will you clarify that at this particular point? What is your definition of nonfinancial corporations?

Dr. ALTMAN. Nonfinancial corporations would be all corporations except or excluding banks, insurance companies, finance companies, and the like. That is what would be commonly taken by that term.

Dr. LUBIN. I am interested to clarify in my own mind just what the lines above the zero base, and those below the line, mean.[1] For example, a corporation earns $100,000 after having paid taxes, all other operating expenses, interest on bonds, and so forth. It pays out in dividends $150,000. In other words, it takes $50,000 out of the surplus account. Would it be above or below the line?

Dr. ALTMAN. It would be above the line and the negative amount, if there was a negative amount, would be offset by the positive amount from other corporations in the same group. May I clarify this particular point? Suppose you had a corporation which had a net income of $1,000, paid out $2,000 in dividends, earned $500 in depreciation and depletion. The sum total of all those items is minus 500. Now that minus 500 would be added to any positive sum for any net income corporation. So that minus $500 would be added into the total which included a corporation, let us say, that made $10,000, paid out $5,000, then had another $5,000 of depreciation and depletion. There you have $10,000 positive. The five would be subtracted from the 10,000 to give 9,500 in the blue bar (above the line).

Dr. LUBIN. But the fact still remains that there are corporations in the red bar (below the line). Does that mean every corporation, are the sums in those bars made up of those instances where the net income of the corporation was minus zero after dividends and depreciation had been taken out?

Dr. ALTMAN. It might have been plus zero after the depreciation and depletion had been taken care of. I am very glad that correction has been made. In other words, the blue bar (above the line) which I have discussed before as indicating the amount that was available for investment on the part of corporations that had a net income, understates the amount to the extent that you had corporations with a positive amount in the red bar (below the line). But it is difficult for this type of statistical analysis to take the plus corporations out of the red bar and put them up in the blue bar.

[1] Referring to "Exhibit No. 585," see infra, p. 3683

EXHIBIT No. 585

# NET PROFITS* PLUS DEPRECIATION & DEPLETION OF NON-FINANCIAL CORPS. 1923 - 1937

Dr. LUBIN. That means then in effect that your red bars may be misleading, at least to the extent that they include corporations that make money, and because of the policy of paying out dividends have got themselves into a position where they automatically would fall into the red section of your bar (below the line).

Dr. ALTMAN. If I understand your question correctly, Dr. Lubin, I think I take the converse of that particular proposition. They are in the red bar because they lost money. Now it may be that by way of internal savings they have a plus amount for investment, which means they should be up in the blue but instead they are down in the red. That means that you may have corporations which have been included in the red bar because they lost $1,000,000 let us say, in any given year but which nevertheless may have had $1,000,000 available for investment, which should be included in the blue.

But I haven't been able in the light of the information available to me to make the correction. I simply indicate it is an understatement of the amount available for investment.

Acting Chairman REECE. Since the colors will not show in the record, it might be well to state the blue bars are above the zero line and the red bars are below the zero line.

Dr. ALTMAN. This particular chart we have been discussing has been photographed and reproduced and is offered in the record. It is called "Net Profits (After Cash Dividends and Taxes) Plus Depreciation and Depletion of Nonfinancial Corporations, 1923 through 1937." The upper half of the chart deals with corporations reporting net incomes, and the lower half of the chart deals with corporations reporting no net incomes.

Mr. NEHEMKIS. Mr. Chairman, I offer into evidence the chart just identified by the witness, together with the supporting table therefor.

Acting Chairman REECE. It may be admitted.

(The chart referred to was marked "Exhibit No. 585" and appears on p. 3683. The statistical data on which this chart is based are included in the appendix on p. 4041.)

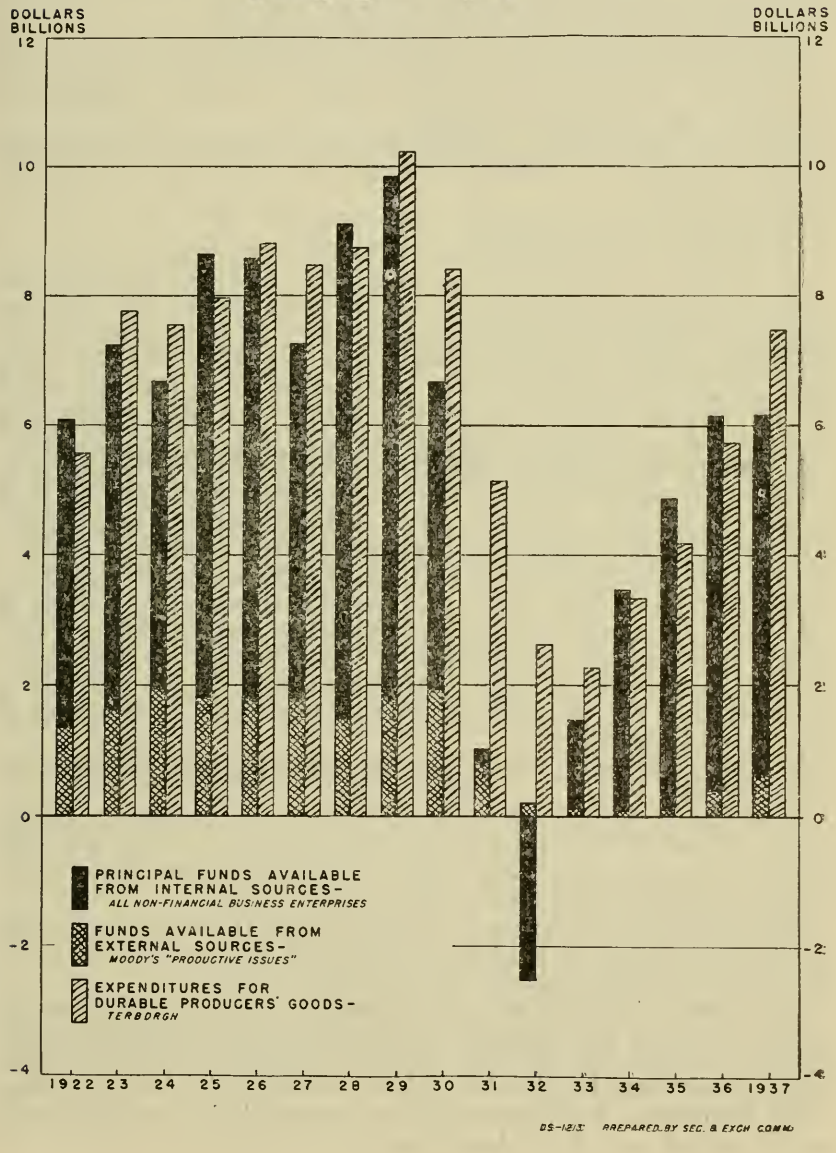
### INTERNAL SOURCES OF BUSINESS FUNDS

Dr. ALTMAN. The situation for the period 1923–29 may now be summarized as follows: The average annual amount spent by business enterprises for plant construction, machinery, and equipment was 8.5 billion per annum; the average annual amount available to the same business enterprises from internal sources was 6.4 billion per annum. Thus the maximum amount which business enterprises needed from the capital markets of the country—that is, from individual and institutional savers—was only 2.1 billion per year.

The table on which these statements are based is offered for the record and is called "Financing Investments in Business Plant and Equipment, 1922–37," and the data in this table are incorporated in the chart which you see and which has the title "Financing Investments in Business Plant and Equipment, 1922–37." In this particular chart covering the period '22 to '37, the yellow bars (the bars to the right of each set of bars) indicate the amount spent each year for plant and equipment. The pink bars (upper segment of the bars to the left) represent the amount available in each year to all busi-

EXHIBIT No. 586

# FINANCING INVESTMENTS IN BUSINESS PLANT & EQUIP. 1922 - 1937



ness enterprises, excluding financial enterprises, from business savings plus depreciation and depletion allowances.

The difference between the height of the pink bar and the yellow bars, which is the bar at the right, represents the amount that was needed from other sources for financing these particular investments in plant and equipment.

A reproduction of this particular chart has been made and is offered for the record. It has the same title as the large one.

Mr. NEHEMKIS. Mr. Chairman, I desire to offer into evidence the chart entitled "Financing Investments in Business Plant and Equipment, 1922–37," and the supporting table therefor.

Acting Chairman REECE. They may be admitted.

(The chart referred to was marked "Exhibit No. 586" and appears on p. 3685. The statistical data on which this chart is based are included in the appendix on p. 4041.)

Dr. LUBIN. May I ask a question about this chart? You take the year 1929, the bar at the right for 1929 is approximately $10,200,000,000, roughly.

Dr. ALTMAN. That is right.

Dr. LUBIN. And the bar at the left is $9,900,000,000.

Dr. ALTMAN. I should offer a correction, I think, that the bars at the left in each particular case consist of two segments. The top segment is added to the bottom segment so that the amount of undistributed profits plus depreciation and depletion does not start from the base but starts from the place where the lower segment of the left hand bar, which is in brown, ends off. The lower segments of the left-hand bars indicate the funds available from security flotations.

Dr. LUBIN. The reason I raise the question is that one immediately asks himself, where did the difference come from, because you have in your two sources of funds internal and external, and both appear to be less than the amount actually expended for producing goods.

Dr. ALTMAN. My answer to that, Dr. Lubin, would be that in an overall analysis of this kind it is impossible to make the sources of funds and the expenditure for any particular purpose balance precisely. I have simply attempted to indicate the relative magnitudes involved and to attempt to set forth the amount which was available each year from the two major sources of funds for the financing of plant and equipment.

Dr. LUBIN. In other words, you are assuming that other sources were available.

Dr. ALTMAN. They must necessarily have been available since the debts incurred in building the plant and equipment must have been paid. They may have been paid by drawing down cash or by liquidating accounts receivable, or the like.

Mr. NEHEMKIS. Dr. Altman, while discussing the chart, what is the significance of the pink bar which falls below the zero line because of the component funds available from internal sources?

Dr. ALTMAN. That is precisely the question asked me a little earlier in the discussion and again I would like to give the same answer; namely, I would like to deal with the depression period by itself and indicate what the pink bar below it indicates in that discussion.

Mr. NEHEMKIS. You impose a heavy responsibility on me to make sure I remind you of all these things, Dr. Altman.

Dr. ALTMAN. I have indicated in this discussion this point, that the average amount spend for construction of plant and equipment for the period '23 to '29 was about 8.5 billion. The average amount available from internal sources was 6.4 billions. In other words, the maximum amount which business enterprises needed from the capital markets of the country to finance these expenditures and fixed assets was only 2.1 billions.

I would now like to deal with that 2.1 billions. The actual amount required was probably substantially less than 2.1 billions. In many cases business expenditures for minor improvements, dies, small tools, and plant additions, and development expenses are charged directly to income.

Mr. HENDERSON. We had an instance of that in Mr. Sloan's statement, which I presume you took note of, where there was a 2-year period for amortizing, for writing off really, the cost of tools and the like.[1]

Dr. ALTMAN. His statement falls directly within what I have been saying, providing that the initial charge was to income and not capital investment.

Mr. HENDERSON. I think he made that very clear.

Dr. ALTMAN. To the extent that these items are charged to income in the first place, they tend to understate the amount of undistributed profit, and then they understate the upper segment of the bar at the left, and thus they understate the volume of funds available from internal sources.

Mr. HENDERSON. I think Mr. Sloan stated two or three times that they were currently getting back the cost of tooling up from the proceeds of the sale of cars.

Dr. ALTMAN. I think there is no question, Mr. Henderson, that in a good many cases costs of this type which are capitalized are charged directly to income, and so understate the volume of funds available for internal financing.

In addition, every year business enterprises receive insurance settlements for property that has been destroyed by fire, damage, shipwreck, and flood. The value of these claims is not available, but a conservative estimate indicates that business enterprises receive at least $150,000,000 a year for losses covered by insurance. In other cases, the establishment of contingency and other reserves, when charged to current income, reduces the amount of savings shown in business reports, without, however, reducing the amount of funds available from internal sources.

No estimate has been made of the additional amount of funds available from these three sources, that is, charging some investments to income, from the payment of insurance claims, and from the establishment of some types of reserves. These items have been mentioned merely to indicate that the estimate of the volume of funds available from internal sources is a modest one. This volume may well be several hundred million dollars greater than the average of 6.4 billions estimated for 1923–29. The indicated requirement of

[1] Supra, p. 3652.

2.1 billions a year on the average from individual and institutional savers was thus clearly a maximum figure.

In fact, the capital markets during the period 1923–29 never contributed so much as $2,000,000,000 a year toward the financing of plant construction and the purchase of machinery and equipment.

May I direct your attention to this particular chart again.[1] The segment of the bars covered in brown, which is equal to the lower segment of the left-hand bar in each particular case, represents the statement made by Moody's Investment Service of the amount of capital issues each year which were used for productive purposes, that is, for the construction of plant and the purchase of machinery and equipment. Notice that these brown segments never rise above $2,000,000,000 a year for the whole period. In some years they were substantially less than $2,000,000,000 a year. Hence, this segment of the bars indicates the amount that was contributed by the capital markets through new security issues which went toward the construction of plants and the purchase of machinery and equipment.

Mr. NEHEMKIS. And what was the figure you gave for that?

Dr. ALTMAN. The statement was that in the whole period 1923–29, the capital market never contributed as much as $2,000,000,000 in any year for the financing of plant construction and the purchase of machinery and equipment.

Mr. HENDERSON. You were going to discuss the relation of that to what was available from other sources. Are you going to tie the two together?

Dr. ALTMAN. I hope to do that.

The volume of securities issued each year was, of course, greatly in excess of $2,000,000,000 a year, but a considerable portion of the securities issued went for refunding purposes; others were floated by investment trusts; and still others were designed for financial purposes, that is, to build up cash balances and to buy securities for investment or for mergers and consolidations.

I wish to be understood as not passing any judgment upon any of the purposes for which these securities were issued. I am simply dealing with the facts as they are and I merely indicate the proportion of the securities issued that was used for the purchase of plant and for the purchase of machinery and equipment.

Acting Chairman REECE. I assume that a considerable percentage of the securities which were not used for that purpose were refunding issues.

Dr. ALTMAN. A considerable percentage was. The particular percentage varies from year to year. As I remember it, the figure for 1929 indicates that we had total new corporate issues of about $10,000,000,000. Of this, about two and a half billion went for refunding purposes.

Mr. NEHEMKIS. Is it your understanding, Dr. Altman, that at a further point in these proceedings additional testimony will be given on the point now under discussion?

Dr. ALTMAN. Yes. If it is the pleasure of the committee, I shall proceed with this, attempting to answer this question from memory. Otherwise, we can simply leave it for the next witness.

Acting Chairman REECE. I think that would be very good.

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[1] See "Exhibit No. 586," supra, p. 3685.

EXTERNAL AND INTERNAL SOURCES OF FUNDS, 1931–33

Dr. ALTMAN. Now, I turn to the period about which two questions have already been asked, namely, the period when the business savings were negative. What did that mean?

During the period from 1931 through 1933 business did not replace plant and equipment as they wore out. Instead of being reinvested in new plant and equipment, depreciation and depletion allowances were in part paid out as dividends to stockholders and in some cases as interest to bondholders. Depreciation and depletion allowances during these 3 years totaled $13,800,000,000, while business expenditures for plant and equipment amounted to $10,100,000,000. There was a net disinvestment, therefore, of $3,700,000,000. That is, plant and equipment were not replaced during these three years to the amount of 3.7 billions.

Business savings for the three years 1931–33 amounted to minus $19,700,000,000. Cash dividends paid constituted $9,300,000,000 of this amount. The balance of minus $10,400,000,000 was composed of actual business losses and revaluations of various business assets, principally inventories and fixed plant. The cash outlays represented by dividends and current losses were met both by current receipts and by reduction of cash balances, liquidation of inventory stocks, and sales of securities and other property. The revaluations of assets, however, did not result in cash disbursements so far as business enterprises were concerned, nor did they constitute any cash receipts on the part of stockholders or bondholders.

And I might add that to that extent they didn't contribute at all to maintaining consumer purchasing power during the depression.

The general material with which I have been dealing is contained in four tables which I offer for the record at this point. The first one is called "Assets and Liabilities of All Corporations, 1926–36."

The second one is called "Changes in Assets and Liabilities of All Nonfinancial Corporations, 1927–1936".

The third is called Inventory Revaluations, for the period 1919 to 1935—perhaps I had better restate this title—"Inventory Revaluations, 1919–35, of All Business Enterprises, Excluding Farms."

The last one is called "Inventory Revaluations, 1919–1933, of All Business Enterprises, Excluding Farm and Security Inventory Revaluations."

I think we can't emphasize too much——

Mr. NEHEMKIS (interposing). Just a moment. Mr. Chairman, I offer in evidence the four tables just identified by the witness.

Acting Chairman REECE. They may be admitted.

(The tables referred to were marked "Exhibit Nos. 587, 588, 589, and 590" and are included in the appendix on pp. 4042, 4043, and 4044.)

Dr. ALTMAN. I think we can't emphasize too strongly at this point that cash outlays on the part of business are not the principal part of the huge volume of negative business savings that I have been discussing. They don't mean cash disbursements on the part of business.

Mr. HENDERSON. Let me try to get it down to less econometric terms. Did the business system between 1929 and 1934 pay out more in cash than it took in?

Dr. ALTMAN. Yes, it did; because the cash on hand and in the bank of all business corporations declined by about, I think, $2,000,000,000 for the period.

Mr. Henderson. So there was about 2 billion dollars paid out in that period.

Dr. Altman. Well, that is, if I could answer the question generally, Mr. Henderson, the payments that were made by business corporations consisted of the following elements: In the first place, they earned depreciation and depletion, and they didn't reinvest those items; they paid those out. They paid out, I have indicated, something like 3.7 billions of depreciation and depletion allowances.

Mr. Henderson. Well, do you know for a certainty whether the cash on hand in liquid investments at the end of 1933 was larger or smaller than it was at the end of 1928 or the beginning of 1929?

Dr. Altman. They were smaller.

Mr. Henderson. My own impression is about the same.

Dr. Altman. I think the table will indicate that.[1]

Mr. Henderson. I can find it in the table, or you can.

Dr. Altman. In 1928 the amount—1929 rather—the amount of cash of all nonfinancial corporations was 7.9 billions whereas in 1933 the amount of cash for the same corporations was 5.9 billions.[1] In other words, a difference of almost $2,000,000,000.

Mr. Henderson. Now that was the cash item.

Dr. Altman. Then you had reductions in other items; you had collections of notes and accounts receivable, reduction in inventories, but the mere fact that you had a reduction in a liquid asset doesn't mean that was paid out to anyone. It simply means a good part of that was paid out to pay off your debts. You liquidate your inventory and then you pay off the account payable which that inventory represents.

Dr. Lubin. Do you have any figures which show the holdings of securities or other types of liquid investments that might account for the depletion in the cash accounts? Might it not be possible that they used cash to buy Government and other securities?

Dr. Altman. The particular item is contained in that table, but it is my recollection that for the period 1929 through 1933 there was no such conversion. There was after 1933. That is, corporations did actually take their cash and go into investments.

Dr. Lubin. In other words, that decline in cash is not to be accounted for in any measure by shifting from a cash position to a liquid investment position in the form of securities.

Dr. Altman. Well, I wouldn't say that, Dr. Lubin, because I am dealing with 470,000 corporations and I can't say what any one of them did. All I can say is what the whole 470,000 did. That may give a very misleading effect in regard to any one. I think for all corporations for the period '29 to '33 there was no such shift.

Mr. Henderson. You said that that reduction in cash was almost 2 billion dollars. It was from 7.6 billion to 5.9 billion—1.7 billion.

Dr. Altman. Well, I stand corrected, Mr. Henderson. Whatever the table indicates is what I should have said.

Mr. Henderson. Pardon me, I was taking the end of 1928, which was improper because the depression set in at the end of 1929.

Dr. Altman. Toward the end of 1929.

Dr. Lubin. Tax investments went up by almost $3,000,000,000. Might that account for that cash difference?

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[1] See "Exhibit No. 587," appendix, p. 4042.

Mr. Henderson. Yes; investments other than tax exempt securities between 1929 and 1933 went up from 21.8 billion dollars in 1929 to 24.6 billion in 1933 which more than offsets the reduction in cash.

Dr. Altman. I didn't say anything about that for the following reason: You will notice that there was no figure given in this table for investments other than tax exempt for any year before 1929. You will notice, too, in 1929 the figure was $21,000,000,000; in 1930 it was $29,000,000,000. Now it is inconceivable that for nonfinancial corporations as a whole there was any increase of $8,000,000,000 for other than tax-exempt investments between 1929 and 1930. Hence the conclusion must be that the first year in which they reported this particular item they didn't get the correct total. Hence the total of twenty-one billion eight hundred million as shown in 1929 must be wrong and for that reason I simply cannot draw any conclusions whether they did or did not go into this particular type of investments.

Mr. Henderson. If the early figure were correct and the 1933 figure were correct and the two cash figures were correct, the amount of cash and liquid investments at the end of 1933 was greater than at the end of 1929. Take the two items together.

Dr. Altman. Well, my answer to that would be that it is simply a coincidence. I think the first figure is wrong.

Mr. Henderson. But I am trying to get some idea of the magnitude of what might have been the amount of extra payments which were disbursed to consumers, you see, made available for consumption in the two periods, and this would mean that the business system, as far as its intake and output in these two years was concerned, was about the same.

Dr. Altman. You mean at the end of 1929 and the end of 1933. Well, there was an actual reduction in cash.

Mr. Henderson. Yes.

Dr. Altman. And the point I am simply trying to make——

Mr. Henderson (interposing). And that item is likely to be a very correct item.

Dr. Altman. Oh, yes; that is right because it is a long-continued series and it is hard to misplace anything in that particular item. I am simply trying to indicate that I don't think the reduction in cash went into an increase of investments of tax-exempt character because I think the starting point of that particular series is probably off. Now it may well have represented paying out of cash to someone outside of the business system.

Mr. Henderson. If you will forgive me, I happen to know these figures and to have made a computation previously which seemed to indicate on the basis of the Treasury figures from which these are derived, Statistics of Income, that the financial position of corporations as represented by their cash and investments at the end of the depression was almost the same as it was at the beginning of the depression. That has been a contention of mine, and I relied upon the Treasury statistics for that.

Dr. Altman. That would in part depend, Mr. Henderson, upon whether you were dealing with nonfinancial corporations, as I am dealing with here, or all corporations. I think the figure for all

corporations gives a vastly different picture because it shows a tremendous increase of tax-exempt investments.

Mr. HENDERSON. Yes.

EXTERNAL AND INTERNAL SOURCES OF FUNDS, 1935–1937

Dr. ALTMAN. Now I should like to turn to the last period I mean to consider, the period 1935 through 1937. During the 3 years 1935 through 1937 business enterprises spent 17.4 billions for plant, machinery, and equipment; 4.2 billion in 1935, 5.7 billion in 1936, and 7.5 billion in 1937.[1] During these same years business enterprises set aside from savings, depreciation, and depletion, a total of 16 billion. Internal sources therefore furnished 92 percent of the expenditures for plant construction and equipment. The remaining requirements were met from external sources. And again the picture is set forth on the chart:

We deal with the 3 years 1935 through 1937. Notice the height of the top segment of the left bar, which is in pink, compared with the investment in plant and equipment.[2] In 1935, for example, the volume of internal savings was greater than the amount invested in plant and equipment. In 1936 the volume of internal savings—the pink bar, upper segment, of the left-hand bar—is about the same as was the investment in plant and equipment. In 1937 the internal savings were less than the volume of investment. Notice that the bottom segment of the left-hand bar in brown, which represents the amount obtaining from the security markets and invested in plant and equipment was very low in 1935 and increased to about 428 millions——

Mr. HENDERSON. It is sufficient, is it not, to say that it was at no time in any one of these years of any substantial importance so far as financing investments is concerned?

Dr. ALTMAN. That is right.

Mr. HENDERSON. And that is the point you are trying to make.

Dr. ALTMAN. For the sake of the record we could say that in 1934 the volume of new securities that went for the purchase of plant and equipment was $94,000,000—I meant that for 1935. In 1935 it was $94,000,000, in 1936 it was $379,000,000, and in 1937 it was $630,000,000.

The bulk of the funds for investment in plant and equipment certainly came from internal sources during this period.

If we focus our attention upon 1937 alone, the last year for which complete data are available, we find that the estimated business expenditures for plant and equipment were $7,500,000,000 whereas the estimated volume of funds available from business savings, depreciation, and depletion was $5,500,000,000.[3] Therefore, the maximum requirement on the part of all business enterprises in the year of greatest business activity since 1929 amounted to only $2,000,000,000.

In other words, the pink bar, which is the upper segment of the left-hand bar, was 5.5 billions, whereas the yellow bar, or right-hand bar, representing investment in plant and equipment, was 7½ bil-

[1] See "Exhibit No. 586," appendix, p. 4041.
[2] Ibid, supra, p. 3685.
[3] Ibid, appendix, p. 4041.

lions.[1] You will notice that for '35 and '36 the volume of internal firms was more than enough to pay for any investment in those years.

This picture is by no means a complete one. In order to complete the picture we should have to consider such additional factors as changes in bank balances, changes in the volume of inventories, and changes in the volume of commercial bank borrowings. The factors we have discussed, however, are the dominant ones in connection with the financing of investments in plant, machinery, and equipment. Changes in cash balances and in bank borrowings are more important in financing current assets than fixed assets.

It does not seem possible to make a complete analysis of the sources and uses of funds for all business enterprises or for all corporations. The data available in the Statistics of Income are inadequate for this purpose.

SOURCES OF FUNDS FOR SELECTED GROUPS OF COMPANIES, 1930–1938

Dr. ALTMAN. It is possible, however, to determine the sources and uses of funds for individual corporations with a high degree of exactness. The testimony of our distinguished business executives who testified yesterday, this morning, and this afternoon, has furnished information in this connection.

Studies in the same direction are currently being made by the Board of Governors of the Federal Reserve System, and preliminary data are available for 56 corporations. The sources and uses of funds have been computed separately for each individual corporation and then compiled for the 56 corporations. I mean to discuss these data as compiled by the Board of Governors of the Federal Reserve System. May I have the permission of the committee to offer them in evidence now and have them back so I may discuss the particular figures?

Mr. NEHEMKIS. We will have them marked for identification and have them returned to you.

Mr. KELLEY. Will you identify them by title?

Dr. ALTMAN. The first table consists of four pages; that is called "Sources and Uses of Funds, 1930–38, 56 Industrial Companies."

(The table referred to was marked "Exhibit No. 591" and is included in the appendix on p. 4044.)

Dr. ALTMAN. The next "Sources and Uses of Funds, 1930–38. 11 Oil Companies."

(The table referred to was marked "Exhibit No. 592" and is included in the appendix on p. 4046.)

Dr. ALTMAN. The next, "Sources and Uses of Funds, 1930–38, Seven Automobile Companies."

(The table referred to was marked "Exhibit No. 593" and is included in the appendix on p. 4047.)

Dr. ALTMAN. And the next, "Sources and Uses of Funds, 1930–38, Nine Steel Companies."

(The table referred to was marked "Exhibit No. 594" and is included in the appendix on p. 4048.)

Mr. NEHEMKIS. May we have these marked?

[1] See "Exhibit No. 586," supra, p. 3685.

Acting Chairman Reece. These must be returned to the stenographic service in time for the record in the morning. They will manage to get them some way, but we want to be sure they are available to them.

Dr. Altman. It will take only a few moments for the discussion of these tables. I would like to discuss the individual industries first and then turn to the 56 companies of the sample. Let us take first the 7 automobile companies.[1] We are dealing here with a sizable group of companies, because the assets of the 7 automobile companies total $1,637,000,000. The companies spent on plant and equipment during the years 1930 through 1938, $430,000,000. During the same years they had available from internal sources, that is undistributed profits or business savings, depreciation and depletion, $564,000,000. In other words, the amount of funds available internally was 31 percent greater than the amount of money they needed to pay for investments in plant and equipment.

Let us take another group; 11 oil companies, having assets of 3.5 billion dollars in 1938.[2] These companies for the same period, 1930 through 1938, spent $2,118,000,000 for plant and equipment, and they had available from internal sources $2,109,000,000. In this case the internal sources did not quite cover the investment in plant and expenditures but they did cover 95 percent of the investments of two billion dollars for the period.

The steel companies made a somewhat different showing with an investment of $1,118,000,000 for the period of 1930 through 1938, and they had available from internal sources $650,000,000.[3] In other words, even in the steel industry where you had very rapid technological progress during this particular period and scrapping of a considerable portion of the steel plant, the steel companies had available from internal sources enough money to finance 58 percent of their expenditures for new plant and equipment during the period.

For the companies as a whole, for the 56 companies as a whole, having assets of almost $12,000,000,000 in 1938, we find that for the years 1930 through 1938 there was spent for plant and equipment $4,184,000,000.[4] The companies had available from internal sources $3,800,000,000, or in other words these companies to finance an expenditure of $4,200,000,000, needed only $400,000,000 from other than internal sources; or to state this in yet another way, these corporations were able to finance 90 percent of an investment of $4,200,000,000 in plant and equipment from internal sources.

Acting Chairman Reece. Do you plan, Dr. Altman, to discuss at some period the difference in the effect on our economy of financing these plants and equipment improvements from internal funds and from the capital markets?

Dr. Altman. Mr. Chairman, I don't really intend to discuss that particular question to much greater length than I have indicated already. That is to say, I have indicated that to the extent that investments in plant and equipment are financed internally, business enterprises need not draw upon the new savings of individuals and

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[1] See "Exhibit No. 593," appendix, p. 4047.
[2] See "Exhibit No. 592," appendix, p. 4046.
[3] See "Exhibit No. 594," appendix, p. 4048.
[4] See "Exhibit No. 591," appendix, p. 4044.

institutional savers to finance these expenditures and so the economy is faced with the problem of finding outlets for savings in other new business enterprises.

Mr. NEHEMKIS. Mr. Chairman, I think we shall have a specific answer to your question in three days of testimony which will follow.

Acting Chairman REECE. Very good; you may continue.

Dr. ALTMAN. I think I am finished with these particular exhibits now and I return them. I have been dealing here with rather large size corporations, you can gather, when you have 56 corporations having assets of almost $12,000,000,000.

SOURCES OF FUNDS FOR CORPORATIONS CLASSIFIED BY SIZE

Dr. ALTMAN. I would like to point out that the same suggestion as to self-sufficiency appears from an analysis of corporations when they are classified by amount of assets. That is to say, when they are classified by size. Since 1931 the Treasury Department has classified corporations by amount of assets, but 1935 is the latest year for which such data are available. Corporations having more than $50,000,000 of assets showed a compiled net profit each year from 1931 through 1935; on the other hand, corporations with assets of less than $50,000 showed a compiled net loss in each year from 1931 through 1935. If we consider the amounts available to corporations from internal sources, that is, from business savings (after payment of taxes and dividends), depreciation and depletion, we find that corporations having more than $50,000,000 of assets paid out in excess of compiled net profits $206,000,000 in 1931 and $323,000,000 in 1932.

Beginning in 1933, however, the volume of funds available from internal sources increased rapidly—for corporations with assets of over $50,000,000—from $511,000,000 in 1933, to $1,000,000,000 in 1934, to $1,500,000,000 in 1935. On the other hand, the volume of business savings plus depreciation and depletion for corporations having less than $50,000 of assets were negative all through the period. In other words, corporations in this group containing the largest sized corporations made money every year.

Mr. HENDERSON. From——

Dr. ALTMAN. 1931 through 1935.

Acting Chairman REECE. In what corporations?

Dr. ALTMAN. Having assets of more than $50,000,000 in each year.

Mr. HENDERSON. Made a profit?

Dr. ALTMAN. Made a profit each year for the years 1931 through 1935.

Mr. HENDERSON. Is that total as a group?

Dr. ALTMAN. As a group; yes.

Dr. LUBIN. Did you say each one did, or the group did?

Dr. ALTMAN. The group did; there may have been losses in the group but they were canceled by profits on the part of other corporations in the same size group.

Acting Chairman REECE. From the information that you have do you think a majority of them made a profit?

Dr. ALTMAN. Well, I couldn't say.

Acting Chairman REECE. Or a relatively large number of them made a profit?

Dr. ALTMAN. I couldn't say to that. The Treasury doesn't publish any data on the number of corporations in this group that made a profit and the number that didn't make a profit. These corporations would tend to run relatively homogeneously with regard to size, since you are dealing with big ones, and the probability is that the majority of them did make a profit; still, I wouldn't want to be held too strictly to that.

The data which I have been discussing are contained in two tables which are offered for the record; one called the "Distribution of Compiled Net Profits and Undistributed Gross Income by corporations classified into nine size groups for the period 1931 to 1935"; and the second is called "Adjusted Undistributed Profits plus Depreciation and Depletion Allowances for Corporations with Assets of less than $50,000 during the Period 1931 to 1935."

Mr. NEHEMKIS. I desire to offer in evidence the two tables just identified by the witness.

Acting Chairman REECE. They may be admitted.

(The tables referred to were marked "Exhibits Nos. 595 and 596" and are included in the appendix on pp. 4049 and 4050.)

### SUMMARY OF DATA ON FINANCING

Dr. ALTMAN. The conclusions that emerge from this discussion of business internal and external financing may now be simply stated.

Business enterprises are dependent upon capital markets for only a small part of the funds they invest annually in plant and equipment. For the period 1923–29, business savings, depreciation, and depletion, on the average, contributed $6,400,000,000 a year toward financing outlays on plant and equipment, while security issues contributed an average of $1,800,000,000. In 1929 business savings contributed $8,100,000,000 against $1,800,000,000 by security issues.

Mr. HENDERSON. That is in 1929, the big year of stock sales, security sales, when the volume ran about——

Dr. ALTMAN. A little over 10 millions. In that year when we had security issues of slightly over 10 billions, 1.8 billions of securities issued were used for the plant and equipment, whereas against this 1.8 billions from security issues we must set 8.1 billions from internal sources; the figures are just reversed—8.1 internally, 1.8 externally.

Mr. HENDERSON. Do you recall what amount was used for business plant equipment in 1937 from your chart?

Dr. ALTMAN. Yes. For the period 1935 through 1937, for those 3 years, internal sources contributed an average of $5,700,000,000 a year, while security issues contributed an average of $370,000,000. For the year 1937 alone we find that the investments in plant and equipment were 7.5 billions, the amount available from internal sources was 5.5, and the amount contributed from securities issued 630 million.

Mr. HENDERSON. Roughly, it was what it was in 1929.

Dr. ALTMAN. That is right.

In years of high business activity, business enterprises draw upon the capital markets; that is, the savings of individuals and institu-

tional investors, but never since 1922 for more than $2,000,000,000 a year. During years of low activity business enterprises do not require any funds from the capital market. Instead, they contribute funds to the capital market, either by paying out dividends in excess of earnings or by converting depreciation and depletion allowances into bank deposits or securities, thus making them available to other types of investors.

Mr. HENDERSON. But in all those years from 1922 to 1937, savings by individuals, either through their own deposits in savings banks or through institutions, continued, did they not?

Dr. ALTMAN. That is right.

Mr. HENDERSON. In other words, as far as the use which the system makes of those savings is concerned, it taps them only in periods of high activity, but just the same, there is the problem of getting those savings employed each one of those years.

Dr. ALTMAN. Yes; to the extent that you have savings in any one year you must find an outlet for those savings to maintain a high level of activity.

Mr. HENDERSON. And you can convert that into terms of employment: that is, the business system as far as it gives employment via the capital markets does it only in periods of high activity, and at the low periods of activity it is not using the capital markets for funds which would give employment.

Dr. ALTMAN. That is right.

Mr. NEHEMKIS. Mr. Chairman, I desire to ask the witness a few questions.

Doctor, just a few questions to complete your presentation. Depreciation reserves—including obsolescence—and depletion reserves are accumulated income tax free, are they not?

Dr. ALTMAN. That is right.

Mr. NEHEMKIS. And when amounts accumulated by those reserves are reinvested, the result is a gradual increase of those charges for depreciation and depletion, is it not?

Dr. ALTMAN. Yes.

Mr. NEHEMKIS. It is only when a specific property is fully depreciated or written off that we find a corresponding reduction in those charges, is it not?

Dr. ALTMAN. Yes.

Mr. NEHEMKIS. In the event of fully realized obsolescence or depletion before the specific property affected has been fully depreciated or depleted, the existing revenue acts allow the amount of the realized obsolescence or depletion, adjusted for reserves already set up for that property, as a deduction from income, do they not?

Dr. ALTMAN. Yes; they do.

Mr. NEHEMKIS. Inventory write-downs have the effect of increasing the cost of goods sold and of decreasing, pro tanto, the taxable income, have they not?

Dr. ALTMAN. Yes.

Mr. NEHEMKIS. Reserves for contingencies and the retention of earned surplus, including gains on sales of capital assets, do not operate to reduce the income tax liability of the corporation, do they?

Dr. ALTMAN. No.

Mr. NEHEMKIS. But they do operate to reduce the income tax liabilities of the shareholders, because they operate to reduce the distributed profits, do they not?

Dr. ALTMAN. That is to say, the shareholders are taxed only on what they receive. If they don't receive anything they don't pay any tax upon it.

Mr. NEHEMKIS. As a matter of fact, obsolete property has an actual value, as an ordinary thing, has it not?

Dr. ALTMAN. I think one would say that a good many times property may be obsolete for one purpose and may still have a value for another.

Mr. HENDERSON. It may be obsolete for tax purposes.

Dr. ALTMAN. It may be obsolete for tax purposes and have a value for other purposes, though I wouldn't want to narrow the answer to that degree.

Mr. NEHEMKIS. Dr. Altman, more specifically, parts of the obsolete property may find their way back into property that is not obsolete, may they not?

Dr. ALTMAN. That happens from time to time.

Mr. NEHEMKIS. As a matter of fact, physical depreciation and obsolescence is nowhere near as great as the reserves allowed for them, are they?

Dr. ALTMAN. Well, that would vary from case to case. In a good many cases the depreciation that is taken might be in excess of the amount one would take if one considered merely the physical life of the particular asset.

Mr. HENDERSON. You have to take into account, do you not, Mr. Examiner, what the maintenance expenditure is on that equipment, or were you coming to that?

Mr. NEHEMKIS. I would rather ask the witness to reconsider my question. Would you be willing to say as a generalization that physical depreciation and obsolescence, in general, is nowhere near as great as are reserves generally allowed for them? I am not asking you to specify specific instances, but I am asking you to make, if you feel you can make as an expert, the kind of generalization suggested by the kind of question I put to you.

Dr. ALTMAN. I wouldn't know as to that, Mr. Counsel. In some cases the depreciation is less than the actual loss in value, and in many other cases it may be more.

Mr. NEHEMKIS. I will accept your answer.

Depletion reserves come much nearer to a correspondence with the realities, do they not?

Dr. ALTMAN. That is correct, the amount that is set aside for depletion actually varies with the amount of the exhaustible resources taken from the grounds, so in that respect it would correspond in a physical and vital sense.

Mr. NEHEMKIS. Likewise, I suppose inventory write-downs correspond more nearly with realities.

Dr. ALTMAN. Inventory write-downs are made in accordance with accepted business policies, and if you follow the policy of cost or

market, whichever is lower, you value the inventory in accordance with the general value at the end of the year.

Mr. HENDERSON. What it means is that if you have a revaluatian of an inventory, you have a problem with the income tax unit of showing that there was a market price on that inventory as a basis for your revaluation, do you not?

Dr. ALTMAN. Oh, yes.

Mr. HENDERSON. But it does come closer to a market price than anything else.

Dr. ALTMAN. Yes; that is when you have been keeping your books for a period of years on the basis of cost or market, whichever is lower, for the inventories and you can show in any given year that you are revaluing your inventories in accordance with this criterion, it is obvious, I think, that the only conclusion one can draw is that when you actually do write down your inventory you are conforming to reality.

Mr. NEHEMKIS. In the case of corporations, Dr. Altman, which maintain their own laboratories, research expense is an allowable deduction for tax purposes, is it not?

Dr. ALTMAN. That is right.

Mr. NEHEMKIS. Now, I take it, the purpose of research is the development of new products and new processes, or the improvement of existing ones. Is that correct, generally speaking?

Dr. ALTMAN. Yes; I think so.

Mr. NEHEMKIS. And I suppose we may say that fruitful research tends toward great profits.

Dr. ALTMAN. I should hope so, because patents are taken out upon research, and they wouldn't take any patents unless they thought they were going to be valuable.

Mr. NEHEMKIS. I am just asking for your opinion. I take it fruitful research tends to increase the real value of plant.

Dr. ALTMAN. In some cases it does. In many cases it does, but in some few cases it may not because you may have research which may make a particular plant obsolete in a sense.

Mr. NEHEMKIS. Would you say in most instances fruitful research tends to increase the value of plant? I accept your reservation that there are exceptions.

Dr. ALTMAN. I prefer not to answer that question. That is like asking me whether General Motors' plant has become more valuable because they have conducted research on any of the dozen things they do research in.

Mr. NEHEMKIS. Would you say research was income tax free as long as a corporation maintained a laboratory as an ordinary and natural expense of business?

Dr. ALTMAN. Yes; that is right.

Mr. NEHEMKIS. Small companies that cannot afford the expense of a laboratory must buy research on the market, is that correct?

Dr. ALTMAN. Yes.

Mr. NEHEMKIS. Sometimes, I suppose, research results in some physical plant and equipment, do you agree with me?

Dr. ALTMAN. Results in the plans which result in plant and equipment; yes.

Mr. NEHEMKIS. In other words, internal corporate financing, the thing we have been discussing, which you have been testifying about, is aided and abetted by our tax laws, is that correct?

Dr. ALTMAN. Oh, I think, to the extent that depreciation and depletion are allowable deductions, that expense for research is allowable, not to mention other factors that would be important in this connection. The answer to the question is yes.

Mr. NEHEMKIS. Realistically, the stockholders of our corporations don't have very much to say about it, do they?

Dr. ALTMAN. They have as much to say about this as they have to say about anything else the corporation does.

Mr. NEHEMKIS. We may describe this process as forced savings?

Dr. ALTMAN. I think the previous answer would hold for this one.

Mr. NEHEMKIS. I have no further questions, Mr. Chairman.

Mr. HENDERSON. I want to get one point clear. While the small business may have to buy its research, and research by an institutional laboratory or research agency of a large corporation is a proper charge to expense, you didn't mean to express any qualitative judgment as to the small versus the large?

Dr. ALTMAN. No; I did not.

Mr. HENDERSON. It would be better, would it not, if small corporations were allowed, when they purchase research in any form from the outside, to charge this as against expense?

Dr. ALTMAN. Oh, yes.

Acting Chairman REECE. Are there any questions?

Mr. TUPPER. This picture which you have developed is an overall picture of all business, all corporations. Presumably, it is built up from the corporation that has no need to go into the capital market for funds and the corporation that perhaps has need to go in for considerable parts of its funds. Now, have you been able to determine from your studies whether a particular industry or particular type of industry, or a particular group of corporations based on size of assets, or a particular group of corporations in terms of maturity—old corporations as against new—are responsible for the greater part of this financing through the capital markets? Or is this picture generally true of all industries, all stages of maturity?

Dr. ALTMAN. I think the general answer to that is that the picture is generally true for all industries, though, of course, the degree to which they finance internally varies from industry to industry and I have introduced various exhibits giving the different type of industries. One remark might be made in this direction, that is to say, the composition of the amount saved internally is not the same in a new industry as it is in an old one. That is to say, when you are dealing with a new industry you very often find that the bulk of the funds saved internally come from undistributed profits, with a small amount coming from depreciation; as the industry matures, you find that the situation tends to be reversed, so that the bulk of the funds available from internal sources comes from depreciation and depletion allowances, which are available.

Dr. LUBIN. Is it possible, from the data that are available to you, Dr. Altman, to come to any conclusion as to whether this practice varies by size of firm? I mean, would the practice be more prevalent in larger firms than in the smaller firms?

Dr. ALTMAN. It is very difficult to answer that question because the over-all Treasury data doesn't permit you to do that. I have introduced into the record what there is, but I don't think it is quite satisfactory for this purpose. However, I think I should mention that a study is currently under way by the Department of Commerce dealing with a thousand corporations for the period 1926 to date, and examining for those corporations the amount of funds available from various sources, including internal sources, and the direction of the expenditure of those particular corporations. When that particular study is done we will have a much better answer than we have had for the American economy as a whole as to how corporations finance and how large corporations finance.

Mr. HENDERSON. Dr. Altman, you have been indicating what is the business saving. That takes place through the depreciation account. I adverted a minute ago to the question of maintenance. Given a corporation that has a depreciation schedule of 10 years, if it spends a large amount for maintenance, that charge of maintenance is not subject to tax, is it?

Dr. ALTMAN. No; that charge for maintenance is an ordinary operating expense and would be deducted before you find your business savings.

Mr. HENDERSON. And then if that equipment is kept in good order and the depreciation is taken via reserve at the end of the 10 year period, it may easily be that they have made an addition to their capital assets by means of a very good maintenance.

Dr. ALTMAN. Oh, that is quite true.

Mr. HENDERSON. One other question. You introduced into the record some information about the experience of some fifty companies studied by the Federal Reserve Board in the period of 1930 to 1938.[1] I wonder, did you undertake to make any analysis of what was the effect on the working capital of those different groups? Did the expenditures, for example, in the oil industry which were about equal to the business savings tend to exhaust working capital or did it leave them pretty much in the same general position as had been maintained before?

Dr. ALTMAN. I don't think there was any significant change in the cash position.

Mr. HENDERSON. How about the automobile companies. Is there an exhaustion of liquid capital?

Dr. ALTMAN. I don't have the record before me, Mr. Henderson, but the tables will indicate what it actually was.[2]

Mr. HENDERSON. So we will be able to know something which I think the chairman is interested in—whether or not what was in effect a deferred purchase of new business plant and equipment until

[1] "Exhibit No. 591," appendix, p. 4044.
[2] "Exhibit No. 593," appendix, p. 4047.

approximately the end of the period, had made an extraordinary drain on the working capital.

Dr. ALTMAN. I should add though in this connection that to the extent that expenditures for plant and equipment were met by undistributed profits, depreciation, and depletion, there simply wasn't any drain upon the working capital of the company. I have indicated that in the case of the automobile companies these were more than sufficient to meet the plant expenditures. In this particular case you actually might have had a net increase in the cash position of the company, after making all the investments in plant and equipment. Now, the situation tended to be in the other direction for the other companies, so that unless they went into the security markets or unless they had some other sources of funds, they might have depleted their cash position somewhat in making these investments in plant and equipment. The tables offered in the record will furnish all the information needed on that point.

Dr. LUBIN. You stated in the course of your testimony as compared to '29 the cost of replacing equipment on the '29 basis was 12 percent less in 1935 than in '29.[1]

Dr. ALTMAN. Yes.

Dr. LUBIN. In other words, a given corporation which had written off its equipment in that period of time could replace it and still have 12 percent more cash than at the beginning of the period.

Dr. ALTMAN. That is right, but I made the additional point that not only would they have 12 percent of the original cost in cash but they would probably also have a better machine.

Dr. LUBIN. You say they would probably have a better machine. Of course, one can't measure the changes in the productivity of the machines over a period unless one knew what machines they were talking about, but the possibility is that even to 1935 the changes in technology were sufficiently great to mean that the same equipment would be more productive than the equipment that was replaced.

Dr. ALTMAN. Yes; I think the evidence seems to indicate that.

Dr. LUBIN. There is this double saving in terms of the actual amount that you have to charge for depreciation in the future. It is less because you paid 12 percent less for the product. At the same time the product itself, being a more efficient producer, the unit cost is less per unit of output.

Dr. ALTMAN. I would agree with that.

Dr. LUBIN. I take it that you don't have any figures to throw any light upon the relations of this problem of more productive equipment replacing old equipment and its bearing upon the amount of labor that is required to produce the same number of units per output.

Dr. ALTMAN. No; nothing besides what I have offered already.

Acting Chairman REECE. The committee appreciates your able and, I might also say, interesting contribution to the study, Dr. Altman.

Dr. ALTMAN. Thank you, Mr. Chairman.

(Dr. Altman was excused from the stand.)

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[1] Supra, p. 3675.

Acting Chairman Reece. As I understand, it is the plan of the committee when it adjourns to adjourn until Monday morning at 10 o'clock. What are your plans at that time, Mr. Nehemkis, and it might be well for you to give the committee the names of the witnesses whom you expect to call.

Mr. Nehemkis. Beginning Monday we shall change the subject of discussion with which the committee has heard for the past few days and turn to the problem of individuals and how they accumulate their savings and where their savings go. We have been hearing for the past few days of how corporations save. Monday we are going to discuss the other side of the picture, of how individuals save, and where their savings go. The first witness will be Ralph Manuel, president of the Marquette National Bank of Minneapolis. the second witness will be Dr. Donald Davenport, of the Harvard Business School. The third witness will be the Honorable Adolph Berle, Jr., Assistant Secretary of State.

Acting Chairman Reece. The committee will stand adjourned until Monday morning.

(Whereupon, at 5:35 p. m., an adjournment was taken until Monday, May 22, 1939, at 10 o'clock.)

# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

MONDAY, MAY 22, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
*Washington, D. C.*

The committee met at 10:20 a. m., pursuant to adjournment on Thursday, May 18, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senators O'Mahoney (chairman) and King; Representatives Williams and Reece; Messrs. Hinrichs, O'Connell, Frank, Patterson, and Brackett.

Present also: Willis J. Ballinger, Federal Trade Commission; Amos E. Taylor, Department of Commerce; Ernest S. Meyers, Department of Justice; Peter R. Nehemkis, Jr., special counsel, Investment Banking Section, Securities and Exchange Commission, and Joesph R. Kelley, associate counsel, Investment Banking Section, Securities and Exchange Commission.

The CHAIRMAN. The committee will please come to order.

During the hearings last week, when E. R. Stettinius, Jr., of the United States Steel Corporation, was on the stand, the chairman directed a question to him with respect to the effect on employment of improvements which have taken place in the modernization of factories. A good deal of testimony was submitted to the committee by Mr. Stettinius to the effect that there had been considerable modernization of plant. The purpose of the inquiry, of course, was to develop the fact that this modernization was the result of the expenditure of accumulated funds in the hands of the United States Steel Corporation, and that it was not necessary for the corporation to depend upon outside financing. In response to the chairman's question, it was testified by Mr. Watson, I believe, that the result of modernization in the plants in which the modernization took place was a reduction of about 25 percent in the number of persons employed as wage workers.

Mr. Stettinius has addressed a letter to me intended to clarify his answer to that question and I am putting his letter in the record at this point, in compliance with his request.

(The letter referred to was marked "Exhibit No. 597" and is included in the appendix on p. 4050.)

The CHAIRMAN. Let me add, in commenting upon the question of technological unemployment, as it is called, my own feeling has been that there can be no doubt that the development of new devices eventually has the effect of providing new jobs for people provided the modernization results in reducing prices to the general public so that



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there can be a larger consumption of whatever the product may be. On the other hand, there can be no doubt that the effect of technological improvement is to reduce the opportunity for work of the persons whose jobs are taken over by the machine, and that, of course, is one of the very serious problems that must be met before this problem is solved.

Senator KING. Mr. Chairman, I would feel that we could not, at least I am not willing to, generalize at this time and to indicate just what the effect has been by reason of technological developments or the modernization of plants. I agree, if I understand you correctly, with you, that it has furnished a considerable outlet for new commodities and new processes, new developments, and it has also added to the opportunities for employment. Generally speaking, I think that the modernization of plants and of technological developments have been an important contribution to the economic improvement of our country.

The CHAIRMAN. I think the committee will no doubt agree with that statement.

Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. I am, sir.

The CHAIRMAN. Will you call your first witness?

Mr. NEHEMKIS. Before I do that, may I read a statement which I have prepared:

The basic problem which is under consideration by the committee in these hearings is the failure of savings to find investment in job-producing enterprises. If savings are not invested, money lies idle, the dollar circuit is broken, and presently men and machines are idle. If the flow of dollars slows down, the flow of goods likewise slows down and our economic machine goes on part time.

Of the two major streams of savings, the committee has heard evidence pertaining to one of our major channels—the savings of corporations.

We now invite the committee's attention to the second main channel—the savings of individuals.

This morning the witnesses to be called by the Securities and Exchange Commission will present evidence on the mechanism of the dollar circuit, how savings are formed, into what reservoirs they flow, and how they are invested.

The Securities and Exchange Commission calls as its first witness Mr. Ralph Manuel.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give in these proceedings shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. MANUEL. I do.

## TESTIMONY OF RALPH W. MANUEL, PRESIDENT, MARQUETTE NATIONAL BANK, MINNEAPOLIS, MINN.

The CHAIRMAN. Please be seated, Mr. Manuel.

Mr. NEHEMKIS. Will you state your name, sir, for the record.

Mr. MANUEL. Ralph W. Manuel.

Mr. NEHEMKIS. And your place of residence.

Mr. MANUEL. Minneapolis, Minn.

Mr. NEHEMKIS. You are, are you not, Mr. Manuel, president of the Marquette National Bank of Minneapolis?

Mr. MANUEL. I am, sir.

Mr. NEHEMKIS. I believe, Mr. Manuel, that you have been associated with that bank and its predecessor organizations for a quarter of a century, is that correct?

Mr. MANUEL. That is correct, sir.

Mr. NEHEMKIS. I think, Mr. Chairman, that the committee will take judicial notice in view of Mr. Manuel's long association with the banking business that his expert qualifications are such as to qualify him to proceed with the discussion.

(The chairman nodded his head in the affirmative.)

Mr. NEHEMKIS. Are you prepared, Mr. Manuel, to discuss the flow of income and the accumulation of savings?

Mr. MANUEL. Yes, sir.

Mr. NEHEMKIS. Then will you proceed, Mr. Manuel, in your own words and in your own way?

Mr. MANUEL. Mr. Chairman and members of the committee, the myriad economic activities through which 130,000,000 people provide themselves with the useful goods and services that they wish to consume and possess and enjoy constitutes a vast and bewildering aggregate that is very hard to examine and analyze. Let us, therefore, for a moment create for ourselves a greatly simplified picture in which the major elements of our problem will be visible at a glance.

Now, I realize that analogies are always dangerous and often misleading and that this one is wholly inadequate. It is not a part of my argument; it is a mere illustration. Please accept it as such, designed only to attract your attention in the direction which the subsequent discussion will take.

### FUNCTIONS OF MONEY IN THE ECONOMIC PROCESS

Mr. MANUEL. Let us suppose an isolated community of perhaps 100 families, existing mainly on potatoes and raising their potatoes collectively. Naturally each family would be entitled to a share of the crop corresponding to its contribution to the production thereof. A member of the community might be appointed to engineer the enterprise and he might give out from day to day to the several families claim checks evidencing the contributions that they have made. At the end of the season he might have a thousand bushels of potatoes in the pile and there might be a thousand claim checks outstanding, for instance. If the crop was meager and the various families had contributed only approximately in proportion to their several needs for potatoes, it is likely that each family would come in and present all of its claim checks and take away all of its share of the product and the whole transaction would clear completely.

If, however, the crop was abundant and some families had contributed out of all proportion to their needs, it is likely that those families would find themselves in possession of claim checks entitling them to much more of the crop than they could possibly use. In that event, it is likely that these families would present only as many of their claim checks as would bring them the quantity of potatoes that they could consume and would hold the other claim checks for subsequent use.

The manager might, therefore, find himself, at the end of the season, with 100 claim checks outstanding and 100 bushels of potatoes rotting upon the ground. The families that made the lesser contributions would have received their full shares of the crop and the families that made the greater contributions would have received all they wanted, so the enterprise must be regarded as having successfully performed the purpose for which it was undertaken. But what about those 100 claim checks that haven't been presented? Shall these contributors who have neglected or refused to take their full shares of the crop and have allowed the potatoes to rot upon the ground be permitted to present those remaining claim checks next year and claim a part of next year's crop? Manifestly not, because these claim checks do not evidence any contribution to the creation of next year's crop, and because next year's crop will all belong to those who produce it and who hold the current claim checks against it.

Obviously the inherent right of each family is the right to his share of every crop and that must, of course, be a temporary right to be exercised in due course or lost. Such an economy could continue only by repudiating, at the end of each season, the claim checks that have not been presented for redemption in the product.

This is a principle which we have sort of lost sight of in our complicated modern economy and the failure of the economic process by which we make our living in the world to function adequately and continuously appears to be due mainly to our ill-advised attempt to permit the participants in that process to postpone at will the exercise of their several rights to claim their shares of the product.

Let us examine that matter from the foundation up. Private capitalism, I take it, rests upon a single and very simple principle: namely, that what a man creates belongs to him. It follows, of course, that what several or many men create collectively belongs to those who contribute to its creation and, of course, belongs to them in proportion to their several contributions. The inherent right of the men who operate our trains and the men who furnish the railway capital is the right to their respective shares in the transportation service produced. But men can't eat or wear transportation service and neither could these contributors readily exchange such transportation service for the things that they require. That difficulty has been met by the development of our rather marvelous technique of distributing the product of our economy through the device of money income. Each contributor receives, instead of his share of the particular product he has helped to create, a quantity of money equal to his share of the whole money sales value of the entire product. This money ordinarily is not wealth, but partakes of the nature of claim checks evidencing the rights of these individual contributors to claim in the markets, goods, and services of their own choosing to the extent of the contributions that they have made.

This money is distributed as wages and salaries and fees and commissions and royalties and rents, dividends, interest, profits, and constitutes the money income of the country, and it is interesting to note that this money income generated by the economic process itself is always roughly just enough to buy the whole collectively produced product of our economy.

Now, by this device of money income we have accomplished the enormously important purpose of converting the contributor's right

to his share of the particular product he has helped to create into that much broader and more useful right to claim its equivalent in the products of any and all producing units. Not content, however, with this complete freedom of choice as to the goods and services in which we will accept our pay or reward for our contributions, we claim a still further privilege. We claim the privilege of determining when we will make our choices and take our shares. We claim the right to take our shares currently or to postpone as long as we please the right to choose and to take. This obviously is impossible. The plain, hard fact is that all those who contribute to the economic process of creating goods and services must take their pay in goods and services that are thus created. Society has and can have nothing else with which to pay them.

The money in our pay envelope and in our dividend check that we are accustomed to think of as payment isn't final payment at all, of course. It is only incontrovertible evidence of our right to claim in the markets final and absolute payment in useful goods and services. Our money economy—or perhaps I should say our device of distributing the product through money income—rests squarely upon the presumption that the recipients of that money income or those to whom they give or trade or lend it will bring it back in due course into the markets to claim their product. It is unworkable on any other basis. It is inherent in the nature of our money economy that it must clear through the markets and only to the extent that it does so clear, can production and employment continue.

### SOCIAL CONSEQUENCES OF HOARDING

Mr. Manuel. When all the current money income does flow back through the markets to claim the current product and no other money purchasing power appears in the markets, the stream of purchasing power flowing into the markets is just enough, roughly, to buy the whole current product at the existing price level. Effective demand and available supply are evenly balanced. Enterprisers are reasonably assured of a market for all the useful goods and services that they can produce. Production and employment expand until all the labor and equipment available are in use.

When contributors to the economic process, however, decline to receive substantial portions of their current shares of the product, hoarding the corresponding portion of their current money incomes either in mattresses or in idle deposits in commercial banks, we have a situation where the stream of money purchasing power flowing into the markets is less than enough to buy the current product. Our economy seeks to adjust itself to this situation through the price mechanism and prices must fall to a level at which that part of the current money income which does flow back through the markets will buy the whole product.

But falling prices destroy profits and discourage production and employment. Shrinking profits make new investments less attractive and encourage further hoarding. That is the familiar and vicious cycle of deflation which feeds upon itself and produces major depressions.

On the other hand, when the contributors to the economic process claim the whole of their shares, and more too, bringing into the

markets all of their current money income, and disgorging some of their previously hoarded money income into the markets beside, we have a situation where the stream of money purchasing power flowing into the markets is more than enough to buy the current product at the existing price level. Our economy seeks to adjust itself to this situation also through the price mechanism and prices must rise until the current product will absorb the whole current money income and the disgorged hoards beside.

Rising prices, of course, increase profits, and increased profits make new investments increasingly attractive and encourage the disgorgings of further hoards. This is the familiar, vicious cycle of inflation which also feeds upon itself and which produces major booms.

The hoarding and disgorging of money income, however, are not the only causes of these major distortions. Persons wishing to claim more of the current product than corresponds to their current contributions, and, therefore, more than can be paid for with their current money incomes, besides disgorging old hoards, bring into the market money which is not current income and never was income. I refer to monetized claims against fixed assets created by capital loans and investments in commercial banks. This sort of bank money doesn't reach the consumer as a part of his current money income, as does the bank money created by monetizing entrepreneurs' claims against current goods, but becomes money purchasing power in excess of current money income. The bringing of that sort of money into the market has precisely the same inflationary effect as does the disgorging of previously hoarded money income.

Likewise, persons unwilling to accept their full shares of the current product, beside or instead of diverting their current money income into hoarding, may apply it to the extinguishment of previously contracted capital loans in commercial banks and diversion of money income away from the purchase of goods and services into the payment of capital loans has precisely the same effect and influence as the diversion away from the current markets into hoarding.

I am not trying to tell you that hoarding of money income and the misuse of the banking process are the only causes of fluctuations in the volume of business activity. As a matter of fact, minor and even quite substantial fluctuations in volume of economic activity occur from time to time and are caused by millions of individual decisions by millions of individual participants in the economic process, motivated by literally innumerable circumstances. These moderate fluctuations arising from the interplay of a multitude of economic forces are perfectly natural and require no labored explanation, and in themselves they produce no disastrous results. But the conversion of these ordinary and perfectly natural movements of expansion and contraction into wild booms and economic debacles are mainly the result of the attempt at some periods, on the part of the public, to claim more of the current product than corresponds to their current money incomes, and, on the other hand, at other times the unwillingness of contributors to the economic process to accept the whole of their shares of the current product.

These phenomena manifest themselves in the boom phase by the intrusion of previously hoarded money income and newly created bank money through capital loans and investments in commercial banks, and, in the depression phase, by the diversion of current

money income away from the markets, away from purchase of goods and services into hoarding and into the extinguishment of capital loans in commercial banks.

Mr. Chairman and counsel, I think there we have the elements of our problem.

Mr. NEHEMKIS. Mr. Manuel, may I ask a few questions of you? Do I understand you to say as a result of the testimony you have just given that you recommend that people be compelled to invest their savings?

Mr. MANUEL. Certainly. The sole purpose of all economic endeavor is the creation of useful goods and services. If a man doesn't desire any portion of that product he has no occasion to play in the game.

SUGGESTIONS FOR MEETING THE PROBLEM OF HOARDING

Mr. NEHEMKIS. How would you enforce that compulsion?

Mr. MANUEL. That is a very difficult question. I probably can't answer it. Many men have thought that it might be accomplished through the use of perishable money of one sort or another. It is possible that in a country where the business is transacted mainly by the use of paper bills, that that might be made to work. In our own country, where our business is nearly all done by bookkeeping transactions through the banking system, it would be very difficult to apply it. I presume that the best approach would be a direct attack upon the hoarding of money income. Starting with our present income tax procedure, perhaps, requiring each taxpayer to show, perhaps at the end of 90 days after the close of his taxpaying year, that he had actually taken into the markets the current money income shown in his statement or that he had given it or traded it or loaned it to somebody who had assumed the obligation to do that for him.

Mr. NEHEMKIS. In short, you are suggesting a kind of, what we might call, moneyed capital tax?

Mr. MANUEL. I think of it in the form of escheat, but I presume the purpose could be accomplished by a tax of less than 100 percent.

Mr. NEHEMKIS. Are you prepared to advise the committee as to the volume of excess bank reserves today?

Mr. MANUEL. They are right around $4,000,000,000.

Mr. NEHEMKIS. What is meant by excess bank reserves?

Mr. MANUEL. The excess balances in the banks of the Federal Reserve System above those required by law.

Mr. NEHEMKIS. I would take it, Mr. Manuel, that the views you have just presented to the committee deviate somewhat from more orthodox views. Is that correct?

Mr. MANUEL. I think the notion that our prime difficulty arises from the failure of saved income to come back through the markets for investment is a perfectly orthodox one, and one all economists would agree to. When it comes to the remedy, I dare say it is quite unorthodox. The orthodox notion of remedy seems to be that we must create investments that are so attractive that these reluctant investors can't resist the temptation to invest their saved income in them.

Mr. NEHEMKIS. Are you not in effect, Mr. Manuel, suggesting a plan that would actually discourage thrift among the American people?

Mr. MANUEL. Not at all. Our savings and accumulations occur in things and not in money. The 18 or 19 billion dollars we save in a fairly good year in this country consists in durable goods. If I have saved any of my part, it consists in some part of those durable goods.

Senator KING. Your savings consist of property, does it not?

Mr. MANUEL. That is right.

Senator KING. If a sheepman thinks there is going to be a very large market for his product he will increase the number of his sheep, and if the market drops he may have on hand perhaps double what the demand is. Would you force him to disgorge that double and throw it on the market or give it away? That is his capital; that is his property.

Mr. MANUEL. Not at all; but when he sells his sheep I would expect him to bring that part of his sale price which represented his net income into the market for investment somewhere. Probably he would invest it in new corrals or new equipment for his ranch.

Senator KING. You realize, I suppose, do you not, that a large part, perhaps the greater part, of the accumulations do not consist of money, but they consist of property?

Mr. MANUEL. Exactly.

Senator KING. And you wouldn't compel a disgorgement of that property because it happened to be a product or profits?

Mr. MANUEL. Not at all. I am contending that his money income shall be invested in that property and not hoarded either in idle deposits or——

Senator KING (interposing). Do not the greater part of your profits consist of property—personal property, real property, and mixed—rather than in money?

Mr. MANUEL. Insofar as they do there is no problem, Senator. It is only the situation where the profit consists of money and then we sit on the money.

Senator KING. Well, it consists in many instances, does it not, of stocks which, when you purchased them, had a certain value, and within a short time thereafter the value was greatly reduced, so that instead of their having a profit they have a loss?

Mr. MANUEL. I am not thinking of speculative losses at all, Senator. The thing we are principally concerned with here is how the economic scheme itself is producing the goods and services which the consumers enjoy, and it operates through money income.

Senator KING. But doesn't your system—and I am not implying a criticism—apply rather to what might be denominated parochial and primitive economic situations rather than conditions that exist in the United States, Great Britain, and other largely commercial communities and states?

Mr. MANUEL. I think the problem arises more particularly in the latter, where the situation is so complicated we lose sight of realities. In our more primitive economy people did invest their current money income quite promptly. They needed it. Most of them needed it for present current purposes, and if a man had a mill and he had some profit he was always anxious to build an addition or improvement, and so on; but now the investors, to quite an extent are divorced from the enterprise in which they invest, and clients

have no sentimental interest whatever in the institutions in which they invest. They are interested only in a safe and profitable investment and one they believe they can convert into cash over night.

Senator KING. If I properly interpret your position, you would not favor the view some of our friends advocate: namely, whenever prices of commodities, particularly farm commodities, fall, they should be elevated by the Government issuing a vast sum of paper money, and that the issue of money is to be adjusted to meet the rise and fall of commodities, rather than by production and demand.

Mr. MANUEL. I think we don't have to worry very much about the changes in the quantity of money. That takes care of itself.

Senator KING. You don't think the quantitative theory of money absolutely determines our economy?

Mr. MANUEL. I think its importance has been very greatly exaggerated.

Senator KING. Some of our friends contend that under the power of the Federal Government to issue money and regulate the value thereof, it is the duty of the Federal Government to keep on issuing money whenever prices fall, and perhaps restrict the issuing of paper money or any kind of money you want to call it when the reverse takes place. You are not in favor of that view, are you?

Mr. MANUEL. I am not, Senator.

Senator KING. That would lead to wild inflation, would it not, and to destruction of prices and to disequilibrium, the evil consequences of which are not always easy to foretell?

Mr. MANUEL. On the contrary, I would favor just the opposite course; namely, I would favor prohibiting commercial banks from monetizing fixed assets at all.

Senator KING. By that you mean you would prohibit them from loaning money upon a fine house or building?

Mr. MANUEL. That is right. That is a proper use of the separate savings and time deposits in a bank, but is not a proper use of the commercial banking process.

Senator KING. You would restrict commercial banks to legitimate commercial transactions?

Mr. MANUEL. I would.

Senator KING. Not making them investment organizations, as you would have a real estate investment organization.

Mr. MANUEL. I think that is very important, sir.

Mr. NEHEMKIS. Thank you, Senator.

Mr. Manuel, would the views which you have just expressed to the committee be classified as monetary reform?

Mr. MANUEL. Not at all. I am interested only in assurance that all those who contribute to the economic process will take their pay in the goods and services that the process recreates.

Mr. NEHEMKIS. In other words, you are not advocating currency inflation of any kind?

Mr. MANUEL. Certainly not.

The CHAIRMAN. What is your definition of hoarding?

Mr. MANUEL. As I have used it here, a delay in investment that might occur by putting the money in a barrel or might occur by leaving the money in idle deposit in commercial banks.

The CHAIRMAN. There is a distinction, is there not, actually, between the burying of actual specie and depositing money income in a bank?

Mr. MANUEL. There is a distinction, but it is not quite what it is thought to be. In times of scarcity of basic money, the particular type of hoarding through burying money has the unfortunate effect of pulling the foundation out from under the banking structure.

The CHAIRMAN. But for the purposes of your discussion this morning you were not referring to that kind of hoarding?

Mr. MANUEL. Not at all. In my discussion, burying the money and leaving it in commercial banks are approximately the same thing.

The CHAIRMAN. All right. Now, what control could the individual who has saved some of his current income have over the investment of his bank deposits?

Mr. MANUEL. All he has to do is to invest them.

The CHAIRMAN. You have, I suppose, some depositors in the bank over which you preside who come to you and deposit their surplus funds with you. Is it not so?

Mr. MANUEL. That is true, Mr. Chairman, because we, unfortunately, in our country, in our banks, do two wholly different kinds of business and get them all mixed up. We perform a savings service, an investment service, for our savings depositors. That is one thing, a wholly different thing from the banking process itself.

The CHAIRMAN. I am trying to separate them.

Mr. MANUEL. I am with you.

The CHAIRMAN. For the purpose of clarifying this testimony, the depositor who comes to you and deposits his surplus funds with you makes you his agent for the purpose of investment.

Mr. MANUEL. If he deposits in our savings department, he does.

The CHAIRMAN. Well, then suppose he deposits them in a current checking account. Does he not also do that? Does he not make you his agent?

Mr. MANUEL. No; not for the investment of it.

The CHAIRMAN. What do you do with those funds?

Mr. MANUEL. His funds consist in a credit balance on the bank's ledger. That balance is our liability and not our asset.

The CHAIRMAN. What do you do with them?

Mr. MANUEL. It is our debt. We can't do anything with them. We owe it to him.

The CHAIRMAN. Do you do nothing with them?

Mr. MANUEL. We do nothing with his deposit. That is our liability.

The CHAIRMAN. But he has deposited with you his credit, whatever it may be—his surplus funds. What do you do with it?

Mr. MANUEL. We don't have it.

The CHAIRMAN. He thinks you have it because if he sits down the next morning and writes a check you will honor the check, will you not?

Mr. MANUEL. What does that check do? It simply transfers the balance in his name to somebody else's in this or some other bank.

The CHAIRMAN. But he may make out the check to cash, whereupon you hand him paper currency, which is merely the promise of the Government to pay.

Mr. MANUEL. That is right, but tomorrow that money will appear in the banking system somewhere. He spends it today and it goes back in.

The CHAIRMAN. In other words, you do have it.

Mr. MANUEL. We have certain reserves.

The CHAIRMAN. You have his actual claim for surplus funds. He has transferred it to you and put it on deposit in your bank, hasn't he?

Mr. MANUEL. He has if he put it in a savings deposit.

The CHAIRMAN. I am not discussing that phase of it. I am discussing the actual case of the deposit in a commercial account.

Mr. MANUEL. Mr. Chairman, may I try to tell you what I think that deposit is?

The CHAIRMAN. Certainly, certainly!

Mr. MANUEL. The function of a commercial bank is to provide the community with a sound credit currency. It does so by monetizing——

The CHAIRMAN (interposing). All right. Now, what is a credit currency.

Mr. MANUEL. I am just going to try to tell you that.

The CHAIRMAN. All right.

Mr. MANUEL. It does so by monetizing the sound credit of its so-called borrowing customers; by monetizing it, I mean giving the quality of currency to that credit, and by giving the quality of currency to that credit, we convert it into money, but the kind of money into which we convert it is not paper money or gold, it is credit balances on the books of the banks which may be transferred from person to person and place to place, and serves the purpose of money in the payment of bills and in the purchase of goods.

The CHAIRMAN. And it might even be used for the construction of plant and durable goods?

Mr. MANUEL. It might.

The CHAIRMAN. And frequently is?

Mr. MANUEL. Yes; and should not be.

The CHAIRMAN. And why not?

Mr. MANUEL. Because monetization of that kind of assets gives us a bank money that has no honest foundation in currently created goods and services that will presently appear in the market and redeem the money in the goods.

The CHAIRMAN. I don't quite follow you. Now, let's try to oversimplify this and make a very rash assumption. Let's assume that every member of this committee deposits $1,000 at your bank, and let's assume that that thousand dollars deposited by each member of this committee represents a surplus of production by the members of the committee over consumption; in other words, a saving by each member of this committee out of current income, and that then you have had, assuming that all of the alternates on the committee have also saved a thousand dollars, we may have as much as $10,000 on deposit in your bank.

Then there comes to your office one morning a reputable citizen in whom you have every confidence, who tells you that he wants to borrow $20,000 to build a certain kind of factory in which he can produce an article which you believe the community will use, which will produce income immediately.

Now, am I to understand from your testimony that it is not a proper function of a commercial banker, it is not a proper act for you, as the head of your bank, to loan this customer of yours the $20,000 to build the factory?

Mr. MANUEL. That depends upon how you men have deposited it.

The CHAIRMAN. These are deposits in commercial checking accounts.

Mr. MANUEL. All right; then my answer would be no.

The CHAIRMAN. That is done.

Mr. MANUEL. Yes; it is done.

The CHAIRMAN. And you consider that to be an incorrect use of savings?

Mr. MANUEL. No, Mr. Chairman; because you are not talking about savings.

The CHAIRMAN. That is saving, isn't it? For each one of us it is a saving, is it not?

Mr. MANUEL. Then you will put it in a savings department and permit me to invest it for you. If you will, it is all right.

The CHAIRMAN. I am trying to develop some distinction between the two, and I am unable to do so.

Mr. HINRICHS. Isn't the distinction between the two types of deposit that a deposit in your savings department is an advertisement to you by the 24 members and alternates that they are permanently committed, or committed over a substantial period of time, to the saving of those funds, whereas the deposit in your commercial department is an advertisement by each person that he may want to come down to the bank the day after tomorrow and take it out again, and that unless there is some actual distinction made, you are unable to give a permanent commitment of the funds because you may not be able to meet your immediate demand obligations?

Mr. MANUEL. That is true, sir; but more than that is true. If I made the loan that the chairman describes I would have created—did you say a $10,000 loan?

The CHAIRMAN. I was unusually optimistic. I said $20,000.

Mr. MANUEL. If I made that loan, as a commercial bank, I would have created $20,000 of new deposit liability, $20,000 of new bank money, what, to the depositor, would be his funds in the bank. I couldn't help making it, and actually, if you take the commercial banking system as a whole I wouldn't have loaned these men's money at all, but would have created between the borrower and the bank $20,000 of new bank money. I couldn't help myself. The result of that transaction would be the creation of a new deposit of $20,000 somewhere.

The CHAIRMAN. It would be on the account of the person to whom you loaned the money.

Mr. MANUEL. Immediately.

The CHAIRMAN. So that you would have the $20,000 in each of these $20,000 items charged against you, and you would also have the $20,000 charged against your bank on the account of the person

to whom you loaned the money, and your evidence of that would be the note or whatever security the borrower gave you in return for the loan.

Mr. MANUEL. That is the way banks and their borrowers create bank money; yes, sir.

The CHAIRMAN. Well, now, am I to understand from you that you think that that is an improper use of the banking function?

Mr. MANUEL. Yes. May I tell you why?

The CHAIRMAN. Certainly; I think we ought to develop it.

Mr. MANUEL. It is an un-needed function because the saved income is always enough to finance the creation of all the capital goods we can make. The process itself creates the savings, and it is an unwarranted function, I think, because it has no liquidity. That kind of bank money doesn't represent any current goods and services that are on the way to market to redeem the money.

The CHAIRMAN. Now, then, you discussed the possibility of escheat. I gather from what you now say that you would not suggest that such a policy should apply to the actual savings of your depositors; that is to say, to those sums which they gave to you to be deposited on time certificates or in savings deposits and under which you were the agent to invest.

Mr. MANUEL. Really, no problem arises because in savings it becomes necessary to invest it. We can't pay them interest unless we do.

The CHAIRMAN. But in your contemplation there would be no such thing as escheat applying to that.

Mr. MANUEL. No, sir; the saver who puts his money in a savings bank has taken his sole step of investment. He performed his part. The savings bank then has assumed the obligation of investment of funds.

The CHAIRMAN. He has invested. Then do I understand you to contend that the function of a commercial bank is to loan money merely for purposes of current consumption?

Mr. MANUEL. Yes; or, if you please, the function of a commercial bank is to create a bank money to implement the current economic process of creating goods for consumption. Lending is not an accurate term. The borrower and the bank create these funds.

The CHAIRMAN. Congress is being besought upon every side, or at least on numerous sides, to provide a system of insured capital loans on the theory that it will expand industry and provide employment. What is your opinion of that suggestion in the light of your testimony?

Mr. MANUEL. That is a part of the whole plan of trying to provide a substitute for the investment of savings.

If savings were invested, there would be no necessity for it. That is just one of the devices by which we try to compensate for the fact that savers on a large scale are now hoarding their savings.

The CHAIRMAN. You see the problem that is presented to the country, to all concerned, the banker and the person in public service, the consumer and the worker and everybody, is that apparently the banks are bulging with money, but that money is not being used. It has been contended that the money ought to be used to provide new industries. Now what, in your opinion, would be the way to approach that objective, or should we approach that objective?

Mr. MANUEL. It should be used, and it should be used by the people who own it. That is what I am asking for, that people who own those savings be compelled to bring them into the markets and accept their shares of the current product.

The CHAIRMAN. Now, you say the people who own the savings should be compelled, and a moment ago we differentiated savings—you did at least. You made a very great difference between the savings of the person who has put his deposit on time in your bank and the depositor who has just put it into a commercial account. As to the former, you said he had already done his work.

Mr. MANUEL. That is right.

The CHAIRMAN. As to the latter, you said his money should be used only for current consumption. I misunderstood you then. How are you going to use that money for plant construction without capital loans?

Mr. MANUEL. By the depositor who owns it investing it in the new product.

The CHAIRMAN. All right. Then here are 20 of us again, each with $1,000. It is impossible for each one of us to find a satisfactory investment for $1,000, but the 20 of us together, using you as the agent, may find an investment for the $20,000.

Mr. MANUEL. Quite probably. Then you put it into the savings department and permit me to do that.

The CHAIRMAN. But we don't choose to do that. We follow our habits and put it in other departments.

Mr. MANUEL. We have to change our habits in that respect.

Senator KING. Your view is that you are acting as a fiduciary with respect to commercial deposits, and you must have the money on hand at midnight and during the day so that each depositor may come and get the amount which he deposited.

Mr. MANUEL. As a practical consideration, that is right, sir.

Senator KING. And the banking failures, which were so numerous, resulted from the fact that the current deposits subject to check, subject to demand at any moment, were utilized oftentimes for plant or for other expenditures, and when the depositor came for his money the bank didn't have it.

Mr. MANUEL. That is quite true, and it is also true that the savings deposits were payable practically on demand, while the only investment that could be made of them was in long-time securities, which we had practically promised to pay on demand, and, of course, we couldn't.

Senator KING. Of course, this is the situation. A large number of people have money, and they may want to use it tomorrow, and they are looking for investment, so they deposit it in commercial banks, expecting that they may obtain it immediately. As a result they don't find investments that are satisfactory, and you may have in your bank a large accumulation of commercial deposits, and your bank and other banks are in the same situation, as a result of which in all of the banks there is an aggregate perhaps of several billion dollars of call money, and it is not available for the purchase of durable goods or for investment generally.

Mr. MANUEL. Right.

Senator KING. Is there any way to avoid that. I have $1,000 and don't know where to spend it. I leave it in your bank. I have confidence in you and in the integrity of your bank whenever I demand it. You are not going to penalize me for leaving my money there.

Mr. MANUEL. It depends on how long it takes you to find a suitable place and how exacting are your requirements. The general public theory is that we must make the investment so attractive to the investor that he can't resist the temptation to invest. I am inclined to think the thing is the other way around.

The CHAIRMAN. Isn't that the answer, that we must make the investment so attractive that the depositor cannot resist? Is it not a fact now that depositors all over the country are saying, "I don't know what to put my money into."

Mr. MANUEL. Quite right, Mr. Chairman, but I don't know that you can make it so attractive. That may be quite impossible. I think the thing is the other way around, that the investors must accept such investment opportunities as are available, and hope for better opportunities. If we did, we would soon come to better ones and those that we made that were a bit wobbly would be good.

The CHAIRMAN. Day by day are your deposits much in excess of your withdrawals? Isn't there a rather static situation?

Mr. MANUEL. Yes, there is.

Senator KING. So that you receive, as an illustration, $100,000 and you pay out $100,000. You have to have, on a checking account, the money there available to meet whatever deposits have been made.

Mr. MANUEL. May I recite a little incident that will illustrate what we are talking about. In our bank we have a small manufacturing customer. It is an individual business that requires very little capital. It makes very little demands upon the owner for capital investment. For 6 years he has allowed his earnings to accumulate until that little manufacturer has $85,000 now in his current checking account, the accumulation of 6 years of saving, and in all that 6 years he hasn't invested a dollar, and that $85,000 has been leached out of your economy.

Senator KING. Are you going to penalize him now for his thrift, his energy, and for developing a business which was profitable?

Mr. MANUEL. Not at all; but he must, if our money economy is to function, invest that money. He must take his share of the product.

Senator KING. Perhaps he was solicitous of obtaining a sufficient reserve that he might expand his business, and in the seventh year or sixth year he expanded his business by purchasing additional land or building another structure.

Mr. MANUEL. That may well be, but it can't be done. I am not going to make him spend his profit; I am going to make him invest it.

Senator KING. Even though he has to have a very large nest egg. In other words, your philosophy is that the Federal Government is to compel me and my friends to spend our money, regardless of the fact that we are not quite ready, and are anticipating spending it in other lines.

Mr. MANUEL. If you mean to include investment—yes; otherwise the portion of the product that corresponds to that current-money income is going to pile up in somebody's warehouse.

The CHAIRMAN. Suppose we invest it in real estate. Is that satisfactory?

Mr. MANUEL. No; that is the same thing.

The CHAIRMAN. Here is your friend with $85,000 in your bank. As I understood your description of his case, he has allowed his earnings to accumulate because he doesn't know what to do with them.

Mr. MANUEL. That is right because he isn't satisfied with what opportunity he has.

The CHAIRMAN. Therefore, if you could make a suggestion to him for the investment of his $85,000 he would probably follow it, would he not?

Mr. MANUEL. I presume so. I wouldn't dare do it because the rest of the fellows are not investing their current income and our economy is only operating on three legs.

The CHAIRMAN. That has always been the way it has operated, hasn't it?

Mr. MANUEL. Yes.

The CHAIRMAN. How would you change it?

Mr. MANUEL. I would require all recipients of current-money income generated by the economic process to bring it back into the markets, or to give it or trade it or lend it to somebody who would.

The CHAIRMAN. Either invest or consume is your theory.

Mr. MANUEL. That is right. There are only two alternatives.

The CHAIRMAN. And there should be some method to make investment easy, certain, and safe?

Mr. MANUEL. Perhaps there should be. There probably isn't any way to make it safe. The thing I have suggested would come nearer it than anything else I know. It certainly wouldn't be safe as long as people are free to hoard their money income and break down the markets.

Senator KING. Then, to give an illustration of some of the problems that some of us have to meet, one of my clients, when I was practicing law, was in the sheep business. He made $10.000 a year for several years in profit. He felt that his business was precarious unless he had a summer range. To acquire the summer range required the purchase of 18,000 acres of land at a cost of approximately $150,000. He began saving each year from his operations, determined to get a summer range. Finally he did save enough, over $100,000, in 8 or 9 years. He added to it and invested it each year at interest, and at the end of 8 or 9 years he had enough to buy the land . Do you think the Government ought to penalize him each year and make him invest that? That was a wrong course for him to pursue, was it, according to your philosophy?

Mr. MANUEL. It was perfectly proper for him to accumulate it, but he can't accumulate it in cash without doing injury to the economic process.

Senator KING. We have, of course, different opinions respecting that. I think it is not the purpose of the Government to compel that man to spend that money when he desired to save it for the purchase

of land. But, as I understand you, as to the money that is deposited with your savings bank, it is proper for you to invest that.

Mr. MANUEL. Yes.

Senator KING. And it is perfectly proper for the depositor to have it invested, and that investment doesn't mean its loss to the economy, does it?

Mr. MANUEL. No, certainly.

Senator KING. I suppose you loan money on real estate or Government bonds, and so on, so that deposits, then, are all right if they are in a savings bank, but if they are in a commercial bank they are not?

Mr. MANUEL. If they are in a commercial bank they are for commercial purposes.

Senator KING. All right.

SUGGESTED RESTRICTIONS ON THE USE OF DEMAND DEPOSITS

Representative WILLIAMS. I understand you represent a commercial bank that has a time and savings deposit division. Do you keep those entirely separate?

Mr. MANUEL. Unfortunately, we cannot, under the law.

Representative WILLIAMS. What is there in the law that prevents you from it?

Mr. MANUEL. We can't distinguish our liability. The liability of the bank to its customers is a liability of the whole bank, it is not a liability of the savings department to savings customers and a liability of the commercial department to commercial customers.

Representative WILLIAMS. Yours is a national bank?

Mr. MANUEL. Yes, sir.

Representative WILLIAMS. Would you like any change in the law in that respect?

Mr. MANUEL. I would like a change very much, Senator. I think it is very important that we separate those departments and that the liability of the savings department shall be a liability to its own depositors and the liability of the commercial department be limited to a liability of its depositors.

Representative WILLIAMS. Do you think that is a practical proposition for the banking fraternity all over the country?

Mr. MANUEL. I can't see why it isn't.

Representative WILLIAMS. You think especially in small communities a small bank, without sufficient business, could be conducted along that line?

Mr. MANUEL. It couldn't affect the amount of its business at all. The only requirement is that the two departments be conducted separately. They could be conducted under the same management and the same capital.

Representative WILLIAMS. Would you have a wall built between the two departments?

Mr. MANUEL. Not necessarily, not a physical wall.

Representative WILLIAMS. Would you have an entirely different set of bookkeeping, two different funds involved?

Mr. MANUEL. Yes.

Representative WILLIAMS. I understand that you are not opposed to the creation of banking credit for commercial purposes.

Mr. MANUEL. That is right.

Representative WILLIAMS. But you are for the other?

Mr. MANUEL. That is right.

Representative WILLIAMS. In other words, you don't believe in this hundred-percent-reserve theory that is going around the country.

Mr. MANUEL. No. That takes the banks out of the banking business.

Representative WILLIAMS. What does it make them?

Mr. MANUEL. Well, instrumentalities of exchange.

Representative WILLIAMS. Simply makes them a warehouse, doesn't it?

Mr. MANUEL. On one side, and on the other side it makes them an instrumentality for exchange, for clearing the checks.

Representative WILLIAMS. Now, in the investment field, it is not an individual proposition as a rule, is it? It is rather an institutional affair, isn't it, in the broad sense of the word?

Mr. MANUEL. You mean most investments are made through institutions?

Representative WILLIAMS. Yes.

Mr. MANUEL. A great many of them are.

Representative WILLIAMS. Where are the savings accounts now, in general? Where are they?

Mr. MANUEL. Do you mean in what form have people their savings invested?

Representative WILLIAMS. Yes; where are they? They are not buried in the ground, are they?

Mr. MANUEL. No; there is $25,000,000,000 or so of them invested through the savings banks and savings departments, and there is another $20,000,000,000 invested through life insurance companies, six or seven billion invested through the savings and loan and building and loan associations.

Representative WILLIAMS. They are in these various institutions throughout the country?

Mr. MANUEL. Yes.

Representative WILLIAMS. They are the ones that do the investing?

Mr. MANUEL. To that extent, they are.

Representative WILLIAMS. How many individual depositors are there; do you know?

Mr. MANUEL. No; I don't know; but there are a very great many.

Mr. NEHEMKIS. Will you forgive me for interrupting? I was just going to say the next witness is going to give you many of the answers that you are asking. He is specifically prepared to go into the precise points that you are raising.

Representative WILLIAMS. I have no objections. I was wondering whether you had this information. There is a vast reservoir of savings now in these various institutions throughout the country.

Mr. MANUEL. Right.

Representative WILLIAMS. Where is the outlet for those savings?

Mr. MANUEL. You mean in what are they invested?

Representative WILLIAMS. Yes; and where is the future outlet for the savings accumulated in the savings institutions? What are they going to invest them in?

Mr. MANUEL. Well, I presume they are going to continue to invest them in real estate, mortgages, and in municipal bonds, Government bonds, and some corporate bonds perhaps.

Representative WILLIAMS. Is there any new field, so far as you can see, for those investments?

Mr. MANUEL. I haven't any in mind. I think perhaps there should be a widening of the legal authority to make those investments. That might expand the investment field a little bit.

Representative WILLIAMS. Would you be in favor of enlarging it so they could invest the funds in the common stock of industrial concerns?

Mr. MANUEL. Well, Congressman, that leads to another problem. If you segregate your savings in banks and introduce a substantial element of flexibility in the obligation of the bank to its savings depositors, then I think we could invest in good preferred stocks and perhaps some common stocks, but we can't as long as we would be under the hammer to return that money every time the depositor chooses to want it.

Representative WILLIAMS. I understand that can't be done in any State of the Union, can it?

Mr. MANUEL. I am not aware of any State in which it can.

Representative WILLIAMS. In other words, the investment of these funds, well, yes, in all of them, is controlled by State legislation.

Mr. MANUEL. That is true.

Representative WILLIAMS. And there isn't any State law which permits the investment of these savings funds in common stock?

Mr. MANUEL. With the exception of the New York provision that savings may be invested in certain types of bank stocks, I think there is none.

Representative WILLIAMS. The only difference, after all, between the commercial bank and the savings institution is simply a matter of time, isn't it?

Mr. MANUEL. I think there is an essential fundamental difference. The savings bank is an agency for assisting people to invest their saved income in proper securities. The commercial bank is strictly an instrument for creating credit currency to implement the economic process through which we do our business.

Representative WILLIAMS. But at the same time the current funds are invested by the bank.

Mr. MANUEL. Well, they are invested when they are created. When we make the loan we make the investment and we create the deposit. They are all one transaction.

Representative WILLIAMS. In other words, you use the individual deposit. It fosters money to loan to somebody else.

Mr. MANUEL. The depositor doesn't happen to have any money, as a matter of fact. While any individual depositor may bring in money, the whole deposit structure of the banking system is built out of loans.

Representative WILLIAMS. Well, at the same time there is an obligation to pay back there just the same as in the savings institutions.

Mr. MANUEL. That is right.

Representative WILLIAMS. And it is only a matter, it seems to me, of when they mature and giving an opportunity in the savings accounts to invest them in capital credit rather than in commercial credit.

Mr. MANUEL. That is a very practical view. I think there is somewhat more to it, Mr. Congressman, but perhaps we can't get into it here.

The CHAIRMAN. Are there any other questions?

Senator KING. What did you say the excess reserves were?

Mr. MANUEL. They are approximately $4,000,000,000. It varies a little from week to week, but mostly upwards.

Senator KING. That is all.

Representative WILLIAMS. What does that mean? What does the excess reserves mean, not the legal definition that you gave a while ago, but what are the possibilities?

Mr. MANUEL. It represents amortization of the gold bullion out in the Kentucky mountains.

Representative WILLIAMS. And it represents the potential credit expansion?

Mr. MANUEL. Yes; it represents the basis of credit expansion, possible credit expansion.

Representative WILLIAMS. That is the amount of reserves over and above the legal requirements.

Mr. MANUEL. That is right.

Representative WILLIAMS. Of course, the legal requirement can't belong; it has to stay there.

Mr. MANUEL. That is right.

Mr. MEYERS. Have you any idea how much interest is paid annually by banks to all depositors?

Mr. MANUEL. No; I wouldn't have that figure in mind. It wouldn't be difficult to estimate that, though, because there are about $25,000,000,000 of those funds and they are now bearing, I suppose, an average of about 2 to 4 percent.

Mr. MEYERS. Would that be composed of commercial savings?

Mr. MANUEL. No interest is paid on commercial savings.

Representative WILLIAMS. That applies normally to only the members of the Federal Reserve System and the F. D. I. C.

Mr. MANUEL. My figure had in mind the mutual savings banks and the——

Representative WILLIAMS (interposing). I mean with reference to payment of interest on current accounts.

Mr. MANUEL. You mean perhaps there are some banks which could pay interest on——

Representative WILLIAMS (interposing). Any commercial bank outside of the Federal Reserve System or the F. D. I. C. system can pay interest on demand deposits.

Mr. MANUEL. Possibly so, I don't know of any bank that does, possibly they can.

Representative WILLIAMS. I might say I know they can, because I know they do it and there are some 8,000 outside the System, aren't there?

Mr. MANUEL. No; I don't think there are that many outside the System.

Representative WILLIAMS. You mean outside the Federal Reserve System.

Mr. MANUEL. Outside the F. D. I. C.

Representative WILLIAMS. I meant the Federal Reserve System.

Mr. MANUEL. This, of course, includes the F. D. I. C. No bank under F. D. I. C. can pay interest on checking accounts.

Representative WILLIAMS. And there are about a thousand of those?

Mr. MANUEL. Yes; and they are very small.

The CHAIRMAN. Any other questions. Mr. Nehemkis, if you are ready to proceed. Thank you very much, Mr. Manuel.

Mr. MANUEL. Thank you.

(Mr. Manuel was excused from the chair.)

The CHAIRMAN. At the hearing of the Temporary National Economic Committee on March 3, 1939, following the testimony of William H. England, Assistant Chief Economist, summarizing the Commission's report on agricultural income, certain questions were asked of Dr. G. A. Stephens by Dr. A. Ford Hinrichs, member of the committee.[1] In the course of this questioning Dr. Hinrichs asked if it would be proper to have additional information on the point under discussion introduced into the record.[1] This information was promised and is given in the attached statement. The statement is herewith ordered to be inserted in the record.

(The statement referred to was marked "Exhibit No. 598" and appears in Hearings, Part V, appendix, p. 2299.)

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, Dr. Davenport has already been sworn by this committee and all I ask leave for at this moment, so that this record in this proceedings may be complete in itself, is to read Dr. Davenport's qualifications for the testimony he is about to give.

The CHAIRMAN. Very well.

Mr. NEHEMKIS. Dr. Donald Davenport holds a doctor of philosophy in economics from Columbia University. He has been associate professor in business statistics, at the Graduate School of Business Administration, Harvard University, since 1929. He has been chief statistician for the New York State Joint Legislative Committee on Taxation and Retrenchment, 1922 to 1923. He has been chief statistician for the California State Tax Commission during the year 1928.

He is the author of the following publications:

The first, coauthor, The Financial District of New York, published by the Regional Plan of New York and Its Environs, 1925.

The Cost of Government in New York State; Unemployment and the Prospects for Reemployment in Massachusetts, published by the Bureau of Business Research, Harvard University, 1936, of which he is coauthor. He is likewise coauthor of the volume entitled "Index to Business Indices," published by Business Publications, Inc., Chicago, 1937. The Cooperative Banks of Massachusetts, published by the Bureau of Business Research, Harvard University, 1938.

(Senator King assumed the chair.)

[1] Hearings, Part V, p. 1826.

## TESTIMONY OF DR. DONALD H. DAVENPORT, SPECIAL ECONOMIC CONSULTANT, INVESTMENT BANKING SECTION, SECURITIES AND EXCHANGE COMMISSION

Mr. NEHEMKIS. Dr. Davenport, are you prepared to state your findings and conclusions with respect to the accumulation and diffusion of the savings of individuals?

Dr. DAVENPORT. I am.

Mr. NEHEMKIS. In addition to your general knowledge of the subject, have you made a special study in preparation for the testimony to be given?

Dr. DAVENPORT. I have.

Mr. NEHEMKIS. Were the charts which you will identify at this time for the committee prepared by you or under your direction?

Dr. DAVENPORT. They were.

Mr. NEHEMKIS. Are they based on statistics believed to be by you authentic and reliable?

Dr. DAVENPORT. They are.

Mr. NEHEMKIS. Do the statistical tables in support of the charts embody data of similar authenticity?

Dr. DAVENPORT. They do, Mr. Nehemkis.

Mr. NEHEMKIS. Are you economic consultant to the Investment Banking Section of the Securities and Exchange Commission?

Dr. DAVENPORT. I am.

Mr. NEHEMKIS. Have you discussed the testimony you are about to give with counsel?

Dr. DAVENPORT. I have.

Mr. NEHEMKIS. Notwithstanding those discussions and your connection with the Investment Banking Section, is the testimony you are about to give to the committee your own considered findings and conclusions?

Dr. DAVENPORT. It will be.

Mr. NEHEMKIS. Will you identify that chart, please, Dr. Davenport?

Dr. DAVENPORT. I identify the chart entitled "Flow of Money Income and Expenditures."

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart just identified by the witness. It is not exhibited. It is for the record only.

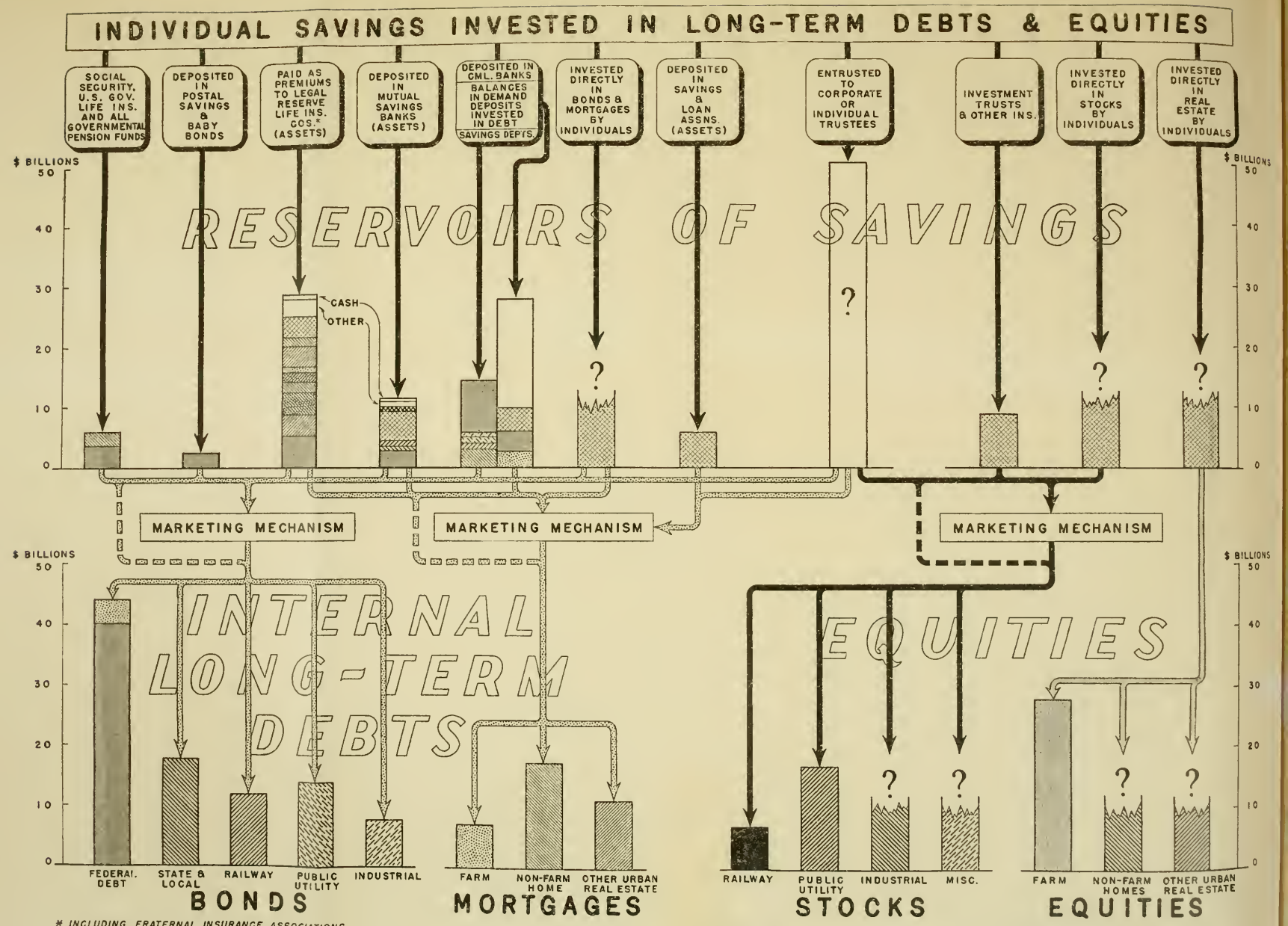
Acting Chairman KING. It may be received.

(The chart referred to was marked "Exhibit No. 599" and appears on p. 4051.)

### MECHANISMS OF THE SAVINGS PROCESS

Dr. DAVENPORT. Mr. Chairman, I have been asked to present to you a description of the methods and processes employed by individuals in accumulating personal savings out of their personal incomes and to discuss with you the mechanisms and processes by means of which individual savings get back into circulation. The subject of business savings has been discussed by other witnesses. My sole function is to present the processes employed by individuals in the accumulation of their savings.

I identify the chart entitled "Individual Savings Invested in Long-Term Debts and Equities."




* INCLUDING FRATERNAL INSURANCE ASSOCIATIONS

DS-1187 PREPARED BY SEC. & EXCH. COMM.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart just identified by the witness now exhibited in extent before the committee.

Acting Chairman KING. It may be received.

(The chart referred to was marked "Exhibit No. 600" and faces this page.)

Dr. DAVENPORT. This chart, Mr. Chairman, presents the various processes that are employed by individuals in the accumulation of their savings out of personal incomes. The titles that appear in the boxes at the top of the chart describe the various processes that are available to individuals to assist them in the accumulation of their personal savings. The first process is designated as "Social security, United States Government life insurance and all governmental pension funds." These are processes which have accumulated approximately $7,000,000,000 and are represented in that magnitude in the bar that appears directly below that process.

The second process is that which represents the accumulation of savings in the postal-savings departments and in addition the accumulation of savings represented by the purchase of baby bonds by individuals, available to individuals through every post office in the country.

Acting Chairman KING. May I interrupt you? Those deposits to which you referred on those two processes are not inactive, the savings are not inactive?

Dr. DAVENPORT. They have been immediately returned to the system through the investment of those funds in Government bonds in the case of postal service.

Acting Chairman KING. What I am trying to get at is that you don't want to convey the idea that those funds in the seven billion or two billion, whatever it is, are inactive.

Dr. DAVENPORT. Not at all.

Mr. NEHEMKIS. Will you proceed?

Dr. DAVENPORT. The third process is that which is represented by the payments of premiums on life insurance policies to legal reserve life insurance companies and in addition to the fraternal life-insurance associations. By this process assets that total over 28 billions of dollars have been accumulated to the credit of individual policyholders.

Acting Chairman KING. What do you mean there by the words "cash" and "other"?

Dr. DAVENPORT. There are about $800,000,000 of cash held by the life insurance companies, deposited by them in commercial banks. The other assets include, among other things, about 3.5 billion dollars of policy loans. Then there are such things as the working equipment of a life-insurance office—furniture and fixtures and things of that sort.

Acting Chairman KING. Below the word "other" the column there is cut up into various figures. What do they represent?

Dr. DAVENPORT. The bar represents $28,000,000,000. It is segmented to show the manner in which those assets are invested, Senator King. The colors and the cross hatchings on the bar are related to the colors and cross hatchings that appear at the bottom of the chart and will serve to identify the exact procedure that is followed by these companies in putting this savings of individuals to work to create jobs and to create profits, to keep our system going.

If I may be permitted, then, to continue the next process, it represents the accumulations of savings deposits in the mutual savings banks. These stand today at about $11,000,000,000, and again the bar representing that sum is segmented to show the character of investments in mutual savings banks. I might point out at this time that the mutual savings banks also have cash which they keep on deposit with the commercial banks. They have approximately a half a billion dollars of cash to their credit in checking accounts which they have in commercial banks.

The next process that is employed by individuals is the accumulation of their savings in the savings departments, the thrift departments, or the special interest departments, as they are sometimes called in the commercial banks, those deposits which the previous witness identified as being ear-marked for investments. They account at the present time for approximately 14 or 15 billions of dollars, the so-called time and savings deposits of commercial banks.

The bar immediately to the right represents the total demand deposits of commercial banks. As the previous witness has indicated, some of these deposits have also become invested in fixed plant and assets of our business enterprises.

Mr. Nehemkis. Will you point to that bar?

Dr. Davenport. That is this bar, "Balances in demand deposits," and here to the left is the bar that represents savings deposits in commercial banks. Both of these bars are segmented to show something of the disposition of those assets held by the commercial banks.

It is a matter of opinion how you might allocate those investments. We would ordinarily think that long-term investments, loans on real estate perhaps, the bonds of public utilities, bonds of railroads, the bonds of industrial corporations, Government bonds, would be the kind of investments that it would be appropriate to make with the savings deposits, so we have put those types of investments into this first bar. There still remains a considerable portion of Government bonds over and above what has been accounted for in the first bar that represents the savings deposits in these thrift accounts.

Mr. Nehemkis. Will you proceed with the next reservoir?

Dr. Davenport. The next reservoir of savings, Mr. Counsel, is a reservoir that we don't know a great deal about in absolute magnitude. We do know that individuals can invest directly, they can buy bonds; you and your colleagues with a thousand dollars apiece might have bought a thousand dollar bond, each one of you, but there are no figures that we have that would indicate those investments in equities on the part of individuals. We have indicated it as a process.

The next process is represented by the accumulations of savings in the savings and loan associations. Sometimes these associations are known as building and loan associations. In Massachusetts they are called cooperative banks, but they are essentially the same thing, and they represent approximately $5,000,000,000 of assets, practically all of them invested in mortgages on urban real estate, principally mortgages on homes.

I would call attention to the fact that these processes are processes which channel the savings of individuals into what we have termed internal long term debts. These savings are primarily ticketed for investment in Government bonds, in the bonds of State and local municipalities, in the bonds of the railroads, the bonds of the public

utilities, the bonds of our industrial corporations, or they may go into the mortgages on our farms, the mortgages on our homes, and the mortgages on other urban real estate.

Acting Chairman KING. Has an attempt been made to classify those mortgages, those obligations, to determine what mortgages on homes represent, farms, and so on?

Dr. DAVENPORT. We have that. The magnitudes that are represented by the bars that appear at the bottom of the chart are proportional to the outstanding debts. This bar of Federal debt, for example, goes up to about $44,000,000,000. The light section at the top of it represents the guaranteed obligations of the United States Government, and the heavy section at the bottom represents the direct obligations of the United States Government. In addition we have about $18,000,000,000 of State and local bonds outstanding; we have approximately $12,000,000,000 of the bonds of railroads, and about $14,000,000,000 of public utility bonds; industrial bonds approximate about $8,000,000,000.

The farm mortgages outstanding are a little over $7,000,000,000 at the present time. The nonfarm home mortgages, I think, run about $17,000,000,000. The other mortgages on other urban real estate look about $11,000,000,000. The aggregate of the long-term internal debts of the country approximate $131,000,000,000. That includes the debts of the governmental units, the United States Government, our railroads, public utilities, farms, homes, and industries.

Mr. NEHEMKIS. May I interrupt you for a moment? I take it that you are not discussing intercompany investments. Is that correct?

Dr. DAVENPORT. That is right, Mr. Nehemkis. With respect to the bonds that company holding is not as significant as it is in the case of ownership of stocks.

Now, if you will permit me to continue with the description of the savings processes available as reservoirs to receive the savings of individual citizens, I point to a bar about which we know very little. This process is described as the amount of money that is being entrusted to private and corporate trustees.

Mr. NEHEMKIS. Dr. Davenport, it seems to me rather extraordinary that the bar which you have outlined there with the huge question mark, according to the statement you have just made to the committee, seems unknown. In your judgment, what would you hazard to be a guess as to the amount of assets that might be included in that bar?

Dr. DAVENPORT. Our own staff in the Trading and Exchange Division of the Securities and Exchange Commission has gone on record making an estimate of approximately $50,000,000,000 as the total amount of wealth controlled by individual and corporate trustees. There is no central authority that collects the information concerning these trustees.

Mr. NEHEMKIS. Professor Davenport, if my memory serves me correctly, you have already testified before this committee that, roughly speaking, the aggregate assets of the legal reserve life insurance companies was in the neighborhood of $26,000,000,000.[1] Is that correct?

Dr. DAVENPORT. Approximately $28,000,000,000 for 1938, I would say.

[1] See "Exhibit No. 221," Hearings, Part IV, pp. 1189 and 1513.

Mr. NEHEMKIS. In other words, the assets entrusted to corporate and individual trustees is twice the size of the assets of the legal reserve life companies. Is that correct?

Dr. DAVENPORT. Not quite twice the size.

Mr. NEHEMKIS. But roughly speaking?

Dr. DAVENPORT. Roughly speaking, you might say twice the size. We don't know what the absolute magnitude is; it may be 50, it may be 40, it may be 60.

Mr. NEHEMKIS. So that we have here in this bar, which you are now directing the committee's attention to, perhaps the largest aggregate of wealth in this country.

Dr. DAVENPORT. Yes; I think that would be correct to say that the amounts of wealth controlled by private and corporate trustees is probably greater than the amount controlled by any one of the other processes listed.

Mr. NEHEMKIS. Let me ask you, Dr. Davenport, do the trustees, corporate or individual, do any reporting as to how the assets are invested, either to State authorities or to the Federal authorities?

Dr. DAVENPORT. It is my understanding that the attorneys general of various States make periodic examinations of the activities of these trustees. We do have, in the case of the national banks, which have permission to open up trust departments, reports made to the Comptroller of the Currency, and he makes a report. The national banks, however, have never gone in in any big way to the trust business. Most of the trust business is concentrated in the control of the State trust companies and the State banks. We do know that the national banks that have trust departments—and it is my recollection that only about a thousand of them have such trust powers—aggregate assets of about $10,000,000,000. There is no central authority that has the complete figures of the activities of these trustees.

Mr. NEHEMKIS. In other words, Dr. Davenport, if I understand your testimony correctly, with respect to one of the largest single aggregates of wealth in this country we really have no adequate system of public reporting. Is that a fair statement?

Dr. DAVENPORT. I am willing to make that statement; yes.

Mr. NEHEMKIS. Very well, sir. Will you proceed?

Acting Chairman KING. Is that quite accurate, in view of the fact that these trust companies are corporations in the main and they exist under State laws, under separate State control and State examinations, State regulation?

Dr. DAVENPORT. They are periodically examined by the State banking commissioners; that is correct; but there is no reporting by those State authorities of the disposition of the assets under the control of the trustees, so we have no way of knowing.

Acting Chairman KING. They have State charters?

Dr. DAVENPORT. Yes; they have State charters.

Acting Chairman KING. And the charters, of course, are issued by the State, and the corporations are under the control of the State. Do not the States make investigations of their solvency and understand what their reserves are, whether they are measuring up to the requirements of the charters and the regulations of the State?

Dr. DAVENPORT. We should segregate the activities of the trust companies into two parts. They are commercial banks; they receive money on deposit—savings or time deposits; they also receive money

which becomes a demand deposit; that is the bulk of their commercial banking activity, and that is reported very completely.

Acting Chairman KING. Are the commercial banks included in this column to which you have just referred?

Dr. DAVENPORT. But with respect solely to their trust activities, which is quite separate and distinct from their banking activities. It is their trust activities which this process refers to.

Mr. NEHEMKIS. Dr. Davenport, I want to recall you for a moment to the unknown bar, the question mark bar. Is it correct that State superintendents have no concern with the administration of trusts unless and until representation is made to such departments that there has been a breach of fiduciary relationship arising from that trust? Is that correct, sir?

Dr. DAVENPORT. I have been so informed by competent legal authority.

Mr. NEHEMKIS. Will you proceed, please, Dr. Davenport, to your next reservoir?

Representative WILLIAMS. Just in that connection, isn't it a fact that those trusts are administered under jurisdiction of some kind of court?

Dr. DAVENPORT. Not always. If they have been created by court action, that is so, but court action is not necessary to create those trusts. It is only when someone alleges a breach of the trust that the court comes in to determine what the trustee has done with the funds.

Mr. NEHEMKIS. In other words, Dr. Davenport. in response to the Congressman's question, it may perhaps be said that courts do or do not exercise jurisdiction, depending upon the circumstances of the individual trust.

Dr. DAVENPORT. I think that is right.

Mr. HINRICHS. Just one question in connection with that bar. You spoke of the lack of reporting. The accuracy of the reports in connection with mutual savings banks, for example, arises out of the fact that reporting is incident to supervision.

Dr. DAVENPORT. To State regulation.

Mr. HINRICHS. To State regulation, and when you speak of a central authority you don't necessarily mean a single center, but rather reports to inspecting authorities.

Dr. DAVENPORT. Inspecting authorities wherever they may be located.

Mr. NEHEMKIS. Dr. Davenport, in connection with the question put to you a moment ago by Congressman Williams, is it a fact that many trusts are never administered or supervised by a court at any time in their life history?

Dr. DAVENPORT. I am quite sure that would be true of a great many individual trusts, and I suspect that it is also true of a great many trusts that are given over, estates that are given over to a corporate trustee.

Acting Chairman KING. The trusts are compelled, are they not, under the State and Federal laws, to submit reports for tax purposes?

Dr. DAVENPORT. That is my understanding, sir.

Acting Chairman KING. So the Government can ascertain the character of operations and profits and losses of respective trusts.

Dr. DAVENPORT. They are interested merely, I take it, from the point of view of getting revenue.

Acting Chairman KING. Yes; for tax purposes, the same as the States.

Dr. DAVENPORT. The States that have that type of taxation.

Acting Chairman KING. So that the Federal Government and the States, by the tax laws which they have, can learn and do learn something of the financial character, the earnings, losses, and so on, of these trusts.

Dr. DAVENPORT. But we don't know the total amount of wealth that is contained in this particular type of reservoir.

Mr. NEHEMKIS. In other words, Mr. Davenport, the reports that are made available in connection with tax purposes relate to income but not to capital assets.

Dr. DAVENPORT. Not to capital assets or to the method in which they have been invested.

(Representative Williams took the chair.)

Acting Chairman WILLIAMS. Proceed.

Dr. DAVENPORT. The remaining processes available to individuals, the processes depicted on the chart,[1] are, in order: Investment trusts and insurance companies other than life insurance companies—the fire insurance companies and the marine and casualty insurance companies operate on principles that are very similar to the principles followed by investment trusts.

Acting Chairman WILLIAMS. Briefly, what is an investment trust?

Dr. DAVENPORT. It is a corporation that receives money from the sale of its own securities, which it then invests in the securities of other types of corporations. It is a savings process; it is very similar in type to the mutual savings bank, except that in the mutual savings bank the depositor gets a passbook instead of a certificate which entitles him to participate in the profits of the investment trust. Moreover, in the case of the savings bank the depositor has the right to withdraw his entire savings directly from the savings bank. In the case of the investment trust no such right ordinarily exists. If the stockholder in an investment trust wishes to withdraw the money that he put in the investment trust it is necessary for him usually to sell his participating security in the market.

Acting Chairman WILLIAMS. Are those investments stocks and bonds both?

Dr. DAVENPORT. Typically they are not; they are in stocks, so we have shown this bar colored and segmented in such a way as to indicate that practically the total of the $8,000,000,000 held in these processes is invested in the stocks of railroads, public utilities, industrial plants, and miscellaneous corporations.

Again, just as we had the possibility that an individual might put his savings directly in the purchase of a bond or a mortgage, it is possible for an individual to put his savings in the outright ownership of stock. We have represented that process by this bar, and again we have no information as to the total stockholdings of individuals.

The last process shows the investment of individuals in the direct ownership of real property, and again our information is almost

[1] See "Exhibit No. 600," supra, facing p. 3727.

totally lacking as to the amounts of wealth, savings, that have been accumulated through the direct outright ownership on the part of individuals of real property.

Mr. NEHEMKIS. Dr. Davenport, as I understand your testimony, individuals, when they place their savings in the reservoirs which you have already indicated to the committee, ultimately land up in two kinds of investment, long-term debts and equities which you have just described. Now, I notice that your chart contains several blocks characterized as "marketing mechanism." What does that mean?

Dr. DAVENPORT. This is the mechanism that is employed, the marketing machinery that is employed, by the institutions that accumulate the savings fund, the great reservoirs of savings, in investing those funds in the securities that are available to them. For example, we have represented this marketing mechanism here as the one that is employed in selling bonds to the savings institutions; it would include the New York Stock Exchange, brokers, investment bankers, and those people who are employed in the capital market.

Mr. NEHEMKIS. That is the traditional way by which an individual puts his savings into an investment function.

Dr. DAVENPORT. That is correct.

Mr. NEHEMKIS. I also notice you have three lines separately colored which bypass the traditional methods that you have just indicated. Will you point to the lines that I am suggesting?

Dr. DAVENPORT. You refer to this broken line. It indicates a bypass around the marketing mechanism.

Mr. NEHEMKIS. What does that mean?

Dr. DAVENPORT. That means that in many instances it is possible for these savings institutions to ignore the capital market and to go directly to the industrial corporation that needs money and make a loan directly to that corporation. In the case of the postal savings it means that the postal savings are directly invested by the post office in bonds of the United States Government without paying any brokerage commissions. That bypass is present in all three of these marketing mechanisms—the marketing mechanism that we referred to in the distribution of bonds, the mechanism that has been set up for the distribution of mortgages, and also for the distribution of stocks.

I should like to call the attention of the committee to the close relationship that exists between the savings that are accumulated by individuals and the debts of the United States Government, the States, and the local governmental bodies, the railroads, public utilities, the debts of the farmers represented by the mortgages on their farms, the mortgages on our homes, the mortgages on our large city buildings. These are debts upon which the savings mechanism has a prior lien. They are by law typically restricted to investment in such types of debts. If the savings mechanisms, the savings reservoirs, grow, the money accumulated in those reservoirs must find an outlet in investment in the bonds and mortgages of our productive plants in this country.

Acting Chairman WILLIAMS. Would you advocate the purchase of stocks also?

Dr. DAVENPORT. Already, Mr. Chairman, the insurance companies have prevailed upon the insurance commissioner of New York State and the Legislature of New York State to permit them to invest in preferred stocks that are guaranteed, and I understand that

there may be some loosening of restrictions to permit investment in the common stocks of corporations that do not have any outstanding bonded debt.

Mr. NEHEMKIS. Dr. Davenport, is it your understanding that on Tuesday morning the Honorable William R. White, superintendent of banks of the State of New York, will appear before this committee to give evidence on the question just asked of you? [1]

Dr. DAVENPORT. That is my understanding, Mr. Chairman. In view of that, perhaps further elaboration of your question would be unwise.

The sum total of the long term debts is approximately $131,000,000,000. The sum total of the savings of individuals accumulated in these reservoirs of credit is now approximately $70,000,000,000. In other words, $70,000,000,000 being accumulated in these reservoirs, the reservoirs that are channeled to investment in a sum total of approximately 131 millions of debt. The balance of the bonds and mortgages that are not held in the 70 billions held in these institutions is held by individuals as individuals, by some of the large foundations and charitable institutions, and so on; or, I might add, by the commercial banks, if you merely consider their commercial demand deposit activities.

Mr. NEHEMKIS. Does that conclude your remarks with reference to that particular part?

Dr. DAVENPORT. I am now prepared to pass on to the next chart.

Mr. HINRICHS. Merely one incidental question. Those three bars that end in a jagged line with a question mark, the height of those bars is of no significance at all?

Dr. DAVENPORT. The height is of no significance at all. They merely represent the fact that the process exists. We know nothing about the relative magnitude of the funds so held.

The next chart presents growth of savings institutions in the United States, 1910–38.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart just identified by the witness, together with the supporting table for such chart.

Acting Chairman WILLIAMS. It may be admitted.

(The chart referred to was marked "Exhibit No. 601" and appears on p. 3735. The statistical data on which this chart and "Exhibit No. 602" are based are included in the appendix on p. 4052.)

GROWTH IN THE VOLUME OF SAVINGS HELD BY SELECTED SAVINGS INSTITUTIONS, 1910–1938

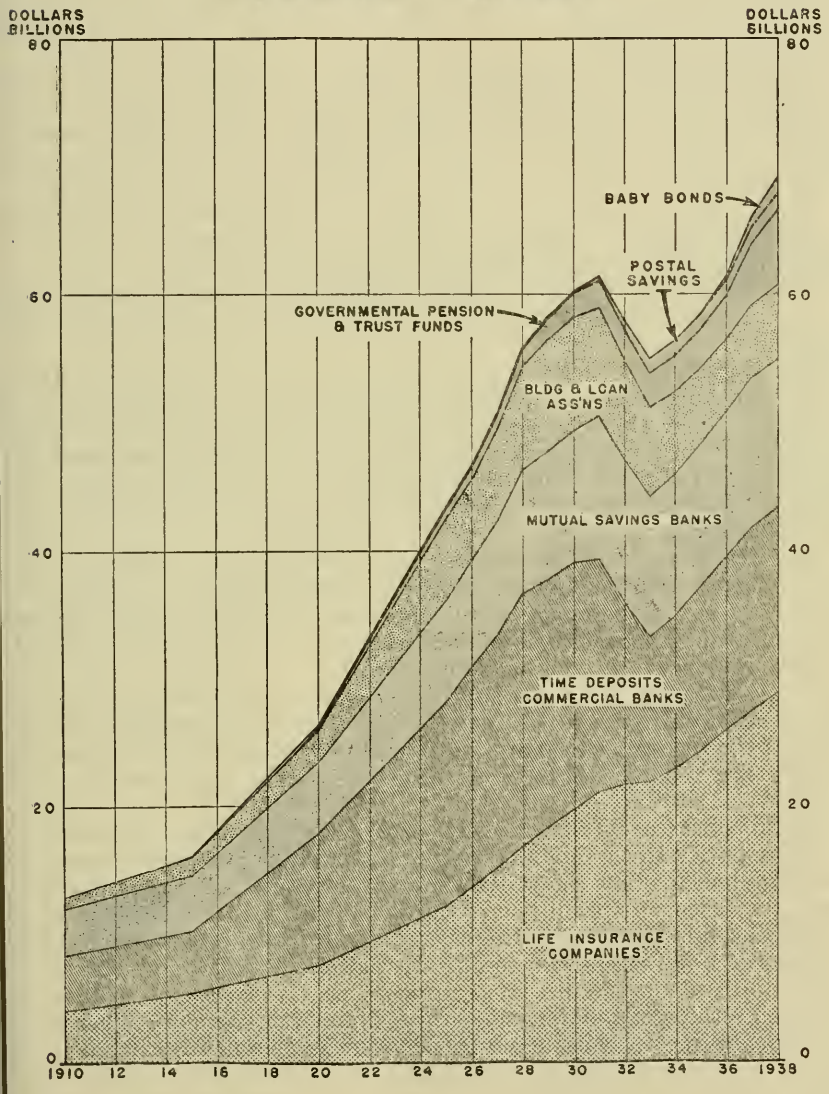
Dr. DAVENPORT. This chart accumulates from 1910 to 1938 the funds that have been saved by individuals in the savings processes described in the previous chart, those savings processes of the great savings institutions, the savings of which are channeled into the investment of long term internal debts.

In 1910 this total was made up almost entirely of four processes. The process that is shown at the bottom is the process of savings through life-insurance companies; that is represented on the large chart in red. The time deposits, savings, and thrift accounts in the

[1] For Mr. White's testimony see infra, pp. 3792–3808.

EXHIBIT No. 601

# GROWTH OF SAVINGS INSTITUTIONS IN U.S. 1910 – 1938




SOURCE: STATISTICAL ABSTRACT

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commercial banks is represented in the next segment on the chart colored in blue on the large chart. The mutual savings bank process is represented in a purple color, and the green represents the amounts accumulated by the building and loan associations. These four processes accounted for the total of approximately $16,000,000,000 in 1910.

The growth in the total is shown by the area under the top line. It grew to approximately $61,000,000,000 in 1931, the peak in the period prior to the great depression. The total dropped from that $61,000,000,000 to approximately $54,000,000,000 in 1933. This drop is represented in the decline in the colored section of the chart. From that low point in 1933 it has since risen to a total which is now a little over $69,000,000,000.

Mr. Nehemkis. Dr. Davenport, I call your attention to the area blocked off in red. I notice there that in contrast with the other segments—time deposits, the mutual savings banks, and so on—we have only a very slight decline for the depression year. How do you explain that?

Dr. Davenport. There was no decline, Mr. Counselor, in the assets of the life insurance companies in the depression years. All you can say is that there was a diminution of the rate of increase.

Mr. Nehemkis. In other words, depression or no depression, the assets of the insurance companies are mounting steadily upward and upward?

Dr. Davenport. There is no question about the fact that the life-insurance companies are a unique institution for the accumulation of savings. They show no diminution in absolute assets, only a slight retardation in their rate of accumulation during the depression, and they stand today at their highest point on record and account for a total of approximately $28,000,000,000 out of the total amount of $69,000,000,000.

Mr. Hinrichs. Dr. Davenport, Mr. Nehemkis, in speaking of the decline in the other types of savings, referred really to a mechanical characteristic of the chart, didn't he; the dip in those higher figures is due to the fact that time deposits themselves went down materially and would carry all the other figures down?

Dr. Davenport. I have a subsidiary chart here which will answer your question directly—the one that was previously introduced at the time of the insurance hearings.[1] It will not be necessary to introduce it into the record, but it will satisfy the point that you are now raising.

In this chart each one of these main principal savings institutions is represented by a separate line plotted from the base instead of accumulated, to show the great sweep in the total. This enables us to trace the history of each one of these institutions. The heavy black line is the line that shows the assets of the life insurance companies and shows no drop, as you see, in the period of the depression. The black and red dashed line that appears next in order of magnitude represents the savings deposits in the commercial banks. There was a sharp decline in those savings deposits as commercial banks were closed and as savings were withdrawn by people whose incomes had been curtailed during the depression. You note that since the low point was reached in 1933 these savings accumulations have in-

[1] See "Exhibit No. 221," Hearings, Part IV, p. 1189.

reased, but not to their previous total. In the case of the savings anks represented by the black and white dashed line, you find a lower growth, a slighter decline; there were very few savings banks hat were closed up at the time of the depression, and since then an ncrease to an all time peak.

The building and loan associations, represented by another black nd white line, lower down on the chart, show a rise to a peak in 1930 vhen they had approximately $9,000,000,000, and then a sharp drop o about $6,000,000,000, where they stand at the present time. Many f the building and loan associations were put into bankruptcy, as ou know.

I should like to give you, while we are still talking about this ame subject, another chart which compares the relative magnitudes f the savings held by these great institutions in 3 years—each of years, 1920, 1930, and 1938. This chart is entitled "Comparison of ssets in Savings Institutions."

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart just dentified by the witness.

Acting Chairman WILLIAMS. It may be received.

(The chart referred to was marked "Exhibit No. 602" and appears n p. 3738. The statistical data on which this chart and "Exhibit No. 01" are based are included in the appendix on p. 4052.)

Dr. DAVENPORT. Here are three bars. The first bar represents 920, the second 1930, and the third the present situation as revealed t the end of 1938. The scale runs from zero at the bottom to 70 illions at the top. Each bar is broken up into parts, and those arts are proportional to the amounts represented by the different nstitutions. They are colored and cross hatched in a way to iden- ify the institutions. The red segment at the bottom represents life nsurance assets. In 1920, life insurance assets amounted to 7.3 illion dollars. By 1930 it had grown to 18.9 billion dollars.

Similarly the next segment, the blue one, represents mutual sav- ngs banks.

Acting Chairman WILLIAMS. You might distinguish that out and ompare it with 1938.

Dr. DAVENPORT. I would prefer, Mr. Chairman, if you don't object, o take 1920 and 1930, and then later take up 1938, because I am ery much interested in bringing out the expansion in each one of hese processes that took place in the decade of 1920, the decade narked by sustained prosperity, the decade that showed an increase n the total savings of individuals from the high-income level that vas maintained throughout that period.

The savings deposits in commercial banks rose from 10 billion lollars in 1920 to 19.1 billion in 1930.

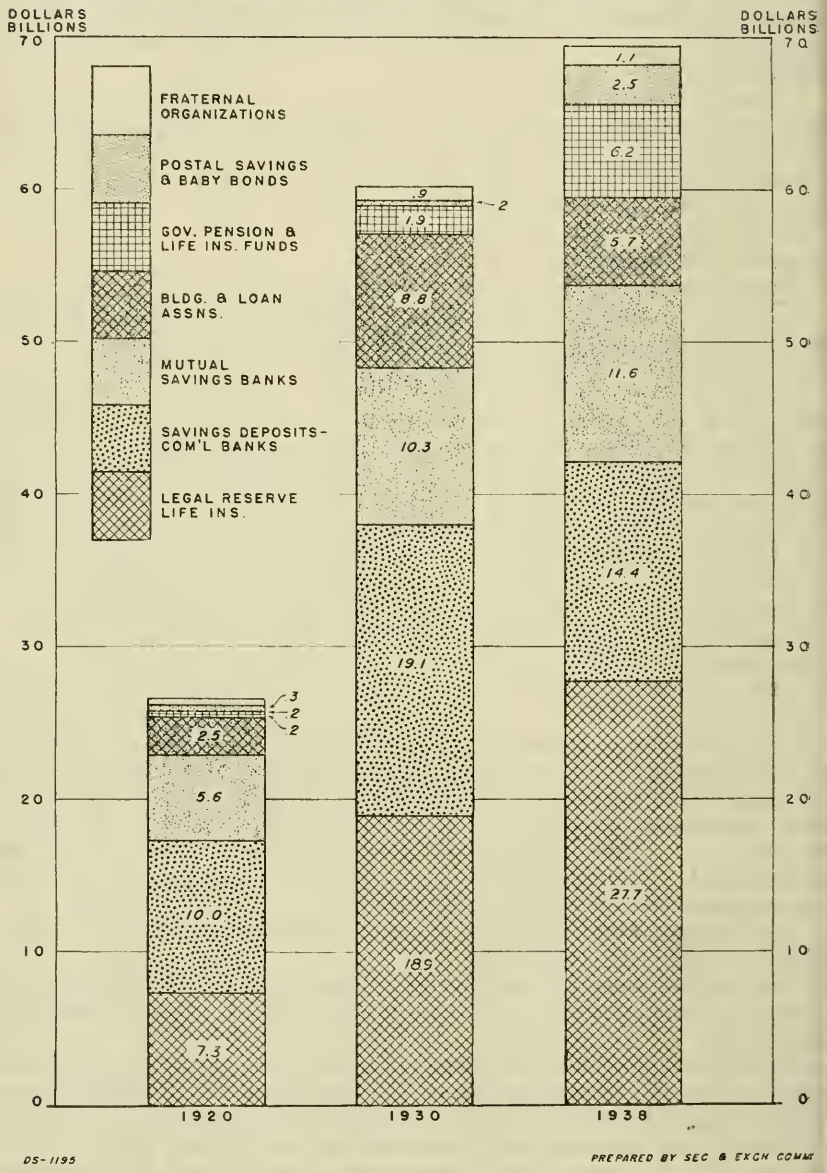
The mutual savings banks, represented by the purple, the next lock, increased from 5.6 to 10.3 billion dollars in this decade of prosperity.

The next one up, the building and loan associations, staged per- aps the most dramatic increases. From 2.5 billion dollars they rose n their total assets to 8.8 billion dollars in this decade.

Three other segments, tiny segments that appear at the top of this ar of 1920, represent the governmental pension and life-insurance funds, of the United States Government life insurance on the lives f veterans, the pension funds of the civil service of the various State

EXHIBIT No. 602

# COMPARISON OF ASSETS IN SAVINGS INSTITUTIONS

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and municipal governments. They were relatively insignificant in 1920, accounting for about $200,000,000.

Postal savings is another $250,000,000, relatively insignificant. There were no baby bonds in 1920.

Fraternal organizations that issue life insurance of a type had about $300,000,000. By 1930 these three processes had risen to about $3,000,000,000, and the total of funds that belonged to individuals, funds that they had saved out of their individual incomes, stood at about $60,000,000,000 on the eve of our great depression.

The depression that struck us the latter part of 1929 carried the assets of the savings institutions down to $54,000,000,000. They were withdrawn, some of them were frozen, some of the commercial banks went bankrupt, some of the building and loan associations passed out of existence, but the total assets of these institutions that were in operation at the depth of the depression amounted to about $54,000,000,000.

Since then an increase has been staged from the low point of the depression, about here if you put in a bar for 1933; we have added $15,000,000,000 since 1933. In 5 years' time we have increased the assets of these savings institutions by about $15,000,000,000, which brings them up to their all-time peak of $69,000,000,000.

Now it is very interesting to see the changes that have taken place in the relative importance of the different institutions. Life insurance has continued to grow and now constitutes the biggest single process that is involved. $28,000,000,000 of funds are held in the assets of the life insurance companies for the credit of the policyholders.

The commercial banks are not as important in the holdings of savings of individual depositors. Time deposits have dropped from 1930, when they stood at $19,000,000,000, to about 14.4 billion dollars. The mutual savings banks are a little more important now than they were in 1930; in 1930 they had 10.3 billions, today they hold 11.6 billion dollars. The building and loan associations, which held 8.8 billion in 1930, now hold 5.7 billion.

I call your attention to the fact that the increase between 1930 and 1938 in the assets of the life insurance companies is approximately equal to the increase in the total. If you will, the expansion in the life insurance companies has compensated for the decline in the savings departments of commercial banks and the decline in the assets of the building and loan associations. Mutual savings banks have helped to compensate for those declines; their assets have increased only about 1.3 billion dollars in this 8-year period.

I should particularly like, however, for the committee to notice the comparable expansion that has taken place in the importance of the three processes which were so unimportant in 1920 and relatively of little importance in 1930—the governmental pension funds and governmental life-insurance funds; that is, the total of our civil-service pension funds, the social security fund, the funds held in the railroad retirement account, the funds held in the civil-service retirement account, plus the funds that are held by States and municipalities for their own employees' retirement pension. They now constitute 6.2 billion dollars. In addition, the postal savings and baby bonds have expanded to a point where together they account for 2.5 billion dollars.

At a later point in my testimony I should like to revert to some of the reasons for this rapid expansion that took place between 1920 and 1930.

Mr. NEHEMKIS. Dr. Davenport, as these savings continually rise to higher and higher levels, you are, of course, confronted with the task of finding outlets for them in enterprises?

Dr. DAVENPORT. Very decidedly. If these savings are to be fruitful, they have to be used, they have to be invested; they have to be invested in plant, equipment, tools, machinery, in such a way that they will provide jobs and produce commodities and services for the community. If they are not invested they are sterile. You can't pay interest on funds that are sterile.

Mr. NEHEMKIS. Does that conclude your testimony, sir, on that particular chart?

Mr. HINRICHS. Dr. Davenport, you mentioned more or less in passing that 6.2 in Government pension and life-insurance funds. One of the very powerful contributing factors was the introduction of a totally new savings process, wasn't it, with the development of the social-security accumulations? That is included in the 6.2?

Dr. DAVENPORT. That is a point that I should like to emphasize, it rose from 1.9 to 6.2, and in the previous decade, 1920, that process was piddling; it accounted for just small change, 200 million dollars.

Mr. NEHEMKIS. Mr. Chairman, if it is the pleasure of the committee, I request that we adjourn at this time.

(Whereupon, at 12:35 p. m. a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:40 o'clock on the expiration of the recess.

(Senator O'Mahoney resumed the chair.)

The CHAIRMAN. The committee will please come to order.

Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. I am, sir.

The CHAIRMAN. Very well.

Mr. NEHEMKIS. Dr. Davenport, will you continue at the point you left off this morning, please.

Dr. DAVENPORT. Just before the committee adjourned we were discussing the chart[1] before you which shows the comparison of assets in savings institutions and I had drawn your attention to the fact that between 1930 and 1938 there was an increase of $8,000,000,000 that had accumulated in these reservoirs of credit, these reservoirs of savings, to the credit of the individual savers of the country.

Now it is significant to remember that at the depths of the depression in 1933 the total of the savings in these reservoirs had dropped to a point about $54,000,000,000 and since 1933 we have added individual savings in these reservoirs to the amount of $15,000,000,000. In other words, in the great savings institutions individual citizens had poured out of current national incomes in this 5-year period savings at the rate of $3,000,000,000 a year.

The CHAIRMAN. That is from 1933 to 1938, inclusive?

Dr. DAVENPORT. That is right, sir, in that 5-year period.

[1] See "Exhibit No. 602," supra, p. 3738.

The CHAIRMAN. And the savings institutions to which you refer are legal reserve life insurance, the savings deposits of commercial banks, mutual savings, building and loan associations, Government pensions, and life insurance funds, postal savings and baby bonds and fraternal organizations.

Dr. DAVENPORT. That is right, sir.

SPIRIT OF THRIFT NOT DECLINING

Mr. NEHEMKIS. Dr. Davenport, isn't the testimony that you have just given to the committee contradictory to the statement of the Cleveland Trust Co. Business Bulletin to the effect that the spirit of thrift in this country was declining?

Dr. DAVENPORT. It is, Mr. Nehemkis.

Mr. NEHEMKIS. How do you explain that contradiction?

Dr. DAVENPORT. The Cleveland Trust Co. Bulletin of March 15, 1938, published an article[1] in which the conclusion was drawn that the spirit of thrift in the United States was declining. The bulletin measured thrift by the relation of the face amount of new life insurance issued to the national income. It was pointed out that the new ordinary insurance written as a percentage of the national income had increased steadily from 1919 through 1932. After 1932, however, the percentage of new ordinary insurance written to the national income fell steadily, from 15.4 percent in 1932 to 9.4 percent in 1938.

(Representative Williams assumed the chair.)

Dr. DAVENPORT. The author of this article concluded that this meant a decline of thrift. He continued that [reading from "Exhibit No. 603"]:

> Representatives of life-insurance companies offer two chief explanations of these developments. One is that people have too little faith in the future of the dollar to be willing to make present sacrifices in return for payments which will be received many years hence. The other explanation is that people consider present thrift unnecessary, because they think that the Government will always take care of everybody through social security and relief payments.

Mr. NEHEMKIS. Would you care to reveal to the committee the name of the author of that statement?

Dr. DAVENPORT. It is generally supposed that Col. Leonard P. Ayres is the author of the articles that appear in the Cleveland Trust Co.'s business bulletin.

Mr. NEHEMKIS. And according to the testimony you have just given to this committee, that statement is clearly erroneous.

Dr. DAVENPORT. That is right.

Mr. NEHEMKIS. Are you prepared to proceed, Dr. Davenport?

Dr. DAVENPORT. Although these explanations were attributed by the bulletin to representatives of life insurance companies, they were immediately disputed by Mr. M. A. Linton, president of the Provident Mutual Life Insurance Co. of Philadelphia, author of many significant and stimulating articles on the subject of life insurance. In a letter to the New York Herald Tribune, dated April 12, 1939,[2] commenting on this editorial which appeared as the result of the article in the Cleveland Trust Co. bulletin. This editorial that appeared in the Herald Tribune was entitled "The Eclipse of

[1] Later introduced as "Exhibit No. 603." See appendix, p. 4052.
[2] Subsequently entered as "Exhibit No. 605," see appendix, p. 4054.

Saving."[1] Mr. Linton, in answering this editorial, pointed out that [reading from "Exhibit No. 605"]:

> Life insurance differs from most other things purchased by the public in that almost all of it requires the payment year after year of renewal premiums if the insurance is to remain in force. As national income falls the margin of income available for savings declines sharply and policyholders find difficulty in maintaining the insurance they already have in force. Under such conditions a measure of their confidence in the institution of life insurance would more properly be the relation to national income of the total amount of premiums being paid to life-insurance companies.

I am in complete agreement with Mr. Linton's criticism.

In the April 15 issue of the Business Bulletin of the Cleveland Trust Co.——

Mr. FRANK (interposing). April 15, 1939?

Dr. DAVENPORT. 1939, Mr. Frank—an attempt was made to meet the criticisms of Mr. Linton and others. A graph was presented of the total of premiums paid on ordinary life insurance and on all other life insurance. The article mentioned the fact that the total premiums paid on all forms of life insurance amounted to 6.3 percent of national income paid out in 1933, 4.5 percent in 1937, and 4.9 percent in 1938.

For some reason, the author failed to use the method of analysis presented in the March 15 issue of that bulletin. He did not relate premiums paid to life insurance companies to the national income before and after the depression, and to this extent he did not answer Mr. Linton's criticism.

Mr. HINRICHS. Mr. Davenport, in that connection, while it is very dangerous not to continue a series and take in a full historical retrospect, I suppose what you mean by your statement with reference to the reason is connected with the fact that the article of the Herald Tribune appeared on the 12th and the Business Bulletin appeared on the 15th and you are really implying that it might have been better to wait until May, other than the inadequacy of the thing itself.

Dr. DAVENPORT. Numerous letters apparently were sent to the Business Bulletin's editor calling his attention to the injustice that he had done life insurance companies, so undoubtedly they had more notice than would have been implied by the date of the letter that appeared in the Herald Tribune.

I should like to present the data which Mr. Linton may not have had the space to include in his letter in the New York Herald Tribune. It is perfectly clear that the total of the premiums paid for all types of life insurance was substantially higher in 1937 and in 1938 than it had ever been in the history of the country.

Mr. FRANK. That is an absolute as distinguished from a relative figure.

Dr. DAVENPORT. Yes. These premiums were only $1,400,000,000 in 1920, $3,400,000,000 in 1929. $3,300,000,000 in 1933, and $3,800,000,000 in 1937—three billion eight in '37, three billion three in '33, in '29 three billion four.[2] If we divide the premiums paid on ordinary life insurance and premiums paid on all other life insurance, we discover two things: First, premiums paid on ordinary life in-

[1] Subsequently entered as "Exhibit No. 604," see appendix, p. 4053.
[2] See "Exhibit No. 606," appendix, p. 4055.

surance increased during the 1920's, they decreased from 1930 to 1933, they increased somewhat after 1933, although they did not reach the peak attained in 1929; yet they were substantially above the average for the good years, 1926 through 1929. Second, premiums paid on other forms of life insurance, other than the ordinary life insurance, principally industrial insurance, group insurance, and annuities, increased more rapidly during the 1930's than the premiums on ordinary life insurance. These premiums paid decreased slightly in 1932 and then began another uninterrupted rise, a rise which is still continuing.

In summary, premiums paid on all forms of insurance stand at the highest point in our history. Premiums paid on ordinary life insurance are somewhat lower than in 1929, but far above the average for the decade 1921–29, and premiums paid on all other life insurance are still increasing very rapidly.

Now, let us consider how much individuals saved in this manner, in this process of putting premiums into life insurance companies. Let us look at the relation of premiums paid to national income. The total premiums paid to life insurance companies for all forms of policies constituted 4.1 percent of a national income of $81,100,000,000 in 1929. By 1932 income had fallen greatly so that the total premiums reached a level of 8.7 percent of a national income of $40,000,000,000; in other words, your national income dropped much more precipitously than did the income of the insurance companies from their premiums.

As national income recovered, the growing volume of premium payments naturally became a smaller part of the total. In 1937 premium payments were 5.4 percent of a national income of 69.8 billion dollars. The percentage of the national income paid as premiums increased thus by a quarter, by 25 percent from the 1929 level to the 1937 level. In other words, they had grown from 4.1 percent of the national income in 1929 to 5.4 percent in 1937.

Now, let us consider another measure of thrift; relationship of the total income of life insurance companies to the national income.[1] Life-insurance companies not only have the premiums that are paid in to them, but they also have a large investment income from these huge sums that they hold in their portfolios. In 1921 the total income of life insurance companies constituted 3.9 percent of a national income of $50,700,000,000. That was in '21. In 1929, the total income of life-insurance companies was 5.4 percent of a national income of 81.8 billion dollars. At the depth of the depression, in 1932, total life insurance income reached the unprecedented figure of 11.6 percent of our national income. Here we may see the tremendous efforts made by the American people to keep on saving despite the lowest income since 1920. In 1937, when our national income recovered to 69.8 billions, the highest level reached since the depression, the total income of life-insurance companies was 7.5 percent of that national income.

Are the American people becoming less thrifty? The first article in the Cleveland Trust Co.'s Business Bulletin assumed that they were. It set forth [reading from "Exhibit No. 603"]:

Two chief explanations of these developments—

[1] In this connection see "Exhibit No. 220," Hearings, Part IV, pp. 1183 and 1513. See also supplemental data, ibid. pp. 1641 and 1642.

—and attributed by them to representatives of life-insurance companies:

> One is that people have too little faith in the future value of the dollar to be willing to make present sacrifices in return for payments that will be received many years hence.

The New York Herald Tribune published an editorial on April 6, 1939, entitled, "The Eclipse of Savings," based on the Cleveland Trust Co.'s Business Bulletin. This editorial stated [reading from "Exhibit No. 604"]:

> It is a commonplace that the last 5 or 6 years have witnessed a marked decline in the spirit of thrift in this country.

These hasty conclusions that the American people are saving less through life insurance are without any foundation.

Mr. Linton, president of the Provident Mutual Life Insurance Co., Philadelphia, remarked that [reading from "Exhibit No. 605"]:

> Speaking of inflation as a deterrent to the purchase of life insurance, it is interesting to note that commencing in 1933 there was a noticeable increase in the buying of annuities. In 1934 the $414,000,000 of new annuity premiums were more than double the 1932 figure, and the high level was maintained through 1937, despite the raising of annuity premiums and the restrictions adopted by life insurance companies to prevent policyholders from giving the companies huge sums which could not be handled satisfactorily because of the decline in the interest rates on new investments. Such fear of inflation as may have resulted from the fiscal policies of the Government has not become evident in life insurance premium receipts.

Mr. Linton concluded his answer to the New York Herald Tribune's editorial, The Eclipse of Saving, with this paragraph [reading further from "Exhibit No. 605"]:

> When all the facts are taken into consideration, I think it will be found that the confidence in life insurance is close to an all time high. Should the national income reach the much desired level of $80,000,000,000 on a price level comparable with the present, people will have greatly increased margins for saving, and I anticipate a large increase in the sale of new life insurance.

I should like to identify a marked section of the Cleveland Trust Co. Business Bulletin, dated March 15, 1939, the entire back page.

Mr. O'Connell. May I ask a question?

Mr. Nehemkis. May I offer this, please, before you ask the question? Mr. Chairman, I offer the section of the document identified by the witness in evidence.

Acting Chairman Williams. Let me inquire, is this the article from which you quoted?

Dr. Davenport. I quoted a section from that, a section of the last paragraph in which the author of the article described why it was that he thought there was an eclipse in saving.

Mr. Nehemkis. We are not offering the entire document. We are merely offering that passage which is marked.

Mr. Frank. The entire last page?

Dr. Davenport. Yes.

Acting Chairman Williams. It may be accepted.

(The article referred to was marked "Exhibit No. 603" and is included in the appendix on p. 4052.)

Dr. Davenport. I identify a copy of the editorial which appeared in the New York Herald Tribune, April 6, 1939, entitled "The Eclipse of Saving."

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence a copy of the editorial just referred to.

(The editorial referred to was marked "Exhibit No. 604" and is included in the appendix on p. 4053.)

Dr. DAVENPORT. I identify a clipping from the New York Herald Tribune containing a letter which Mr. M. A. Linton, president of the Provident Mutual Life Insurance Co. of Philadelphia, sent under date of April 12, 1939, to the New York Herald Tribune.

Mr. NEHEMKIS. Mr. Chairman, I offer the editorial just identified and referred to by the witness.

(The letter referred to was marked "Exhibit No. 605" and is included in the appendix on p. 4054.)

Dr. DAVENPORT. I identify a table entitled "Premium Income, Total Income, and Adjusted Increase in the Assets of All Life Insurance Companies, in Relation to National Income, 1920 to 1937."

Mr. NEHEMKIS. May I offer the table just identified by the witness, Mr. Chairman?

Acting Chairman WILLIAMS. This exhibit may be accepted for the record.

(The table referred to was marked "Exhibit No. 606" and is included in the appendix on p. 4055.)

Mr. NEHEMKIS. Are you ready to proceed, Dr. Davenport?

Dr. DAVENPORT. I identify the next chart which I shall discuss as chart entitled "Loans and Investments of All Member Banks of the Federal Reserve System, 1921–38."

Mr. NEHEMKIS. Mr. Chairman, I offer the chart just identified and described by the witness.

Acting Chairman WILLIAMS. This may be accepted for the record.

Mr. NEHEMKIS. I likewise offer the supporting table for that chart.

(The chart referred to was marked "Exhibit No. 607" and appears on p. 3746. The statistical data on which this chart is based are included in the appendix on p. 4056.)

Mr. NEHEMKIS. I believe Mr. O'Connell desired to direct a question to you.

Mr. O'CONNELL. Referring for a moment to the bulletin which we were discussing a moment or two ago, my understanding of the purport of the article in the Cleveland Trust Co. bulletin was to the effect that by taking premiums paid to insurance companies the author came to the conclusion that thrift in general was declining. Is that it?

Dr. DAVENPORT. He did not take premiums paid. He took the face amount of new insurance written, which does not represent the amount of savings, because the premium on a $10,000 policy, a new $10.000 policy taken out at a certain age, might be a couple of hundred dollars a year. It is only the amount that is paid in premiums that is a deduction from income. A comparison of new insurance written with national income in those years was meaningless. He did not support the conclusions that were drawn from that comparison.

The importance of the Cleveland Trust Co.'s Bulletin, and the importance that was attached to it in the press, is what has led to our taking exception to the statement that there has been a decline in the spirit of thrift. Our figures show definitely the contrary.

EXHIBIT No. 607

# LOANS & INVESTMENTS OF ALL MEMBER BANKS

## OF THE FEDERAL RESERVE SYSTEM

## 1921 — 1938

Mr. FRANK. Both absolutely and relatively?

Dr. DAVENPORT. Both absolutely and relatively.

Mr. FRANK. Relative to the national income and in absolute figures.

Mr. O'CONNELL. Using other means of measurement other than insurance receipts, that so called decline in thrift has not occurred?

Dr. DAVENPORT. That is right, sir. You can point to a decline in the total individual savings held in certain reservoirs. The building-and-loan associations are not as great now as they were prior to the depression. They have lost absolutely and relatively. Similarly, the savings funds held in the savings departments of commercial banks, while greater than they were in 1933, are still considerably below where they were before the depression began. But the great expansion that has taken place in the life-insurance company assets more than compensates for the decline in the savings departments of commercial banks and the decline in the savings held in the building-and-loan associations. There was an absolute increase in the savings held in the mutual savings banks; and then, in addition, we had a great expansion in a newer type of savings process, represented by the governmental pension funds and trust funds of all governmental units, including the social-security fund, the civil-service retirement fund, the railroad retirement fund, the United States Government life insurance fund, and baby bonds and postal savings. Those processes expanded very greatly between 1930 and 1938, and they were relatively new processes, you see. We have only had baby bonds for 4 years, and we now have a billion and a quarter of baby bonds held by individuals. Postal savings now account for another billion and a quarter. We added last year to the social security fund through the withdrawals from wages almost a billion dollars.

Mr. NEHEMKIS. Dr. Davenport, unless this committee has any further questions, are you ready to proceed with the chart which was identified and which has been offered in evidence?

Dr. DAVENPORT. I am, Mr. Counsel.

### RECENT CHANGES IN CHARACTER OF COMMERCIAL BANKING ACTIVITIES

Dr. DAVENPORT. The member banks of the Federal Reserve System represent between 80 and 90 percent of the total commercial banking structure of the country. With respect to the member banks of the Federal Reserve System, we have comparable and reliable statistics going back over a number of years. These statistics reveal some very interesting changes that have taken place in the character of commercial banking activities.

If you will note the three curves on this chart,[1] you will see the three principal categories of their loans and investments. The heavy black line that extends upward to the right shows the absolute amounts of the member banks' investments in securities, including Government bonds, and their investments in real estate mortgages. This classification of investment rose from a figure of 7.1 billion dollars in 1921 to 20.4 billion dollars in 1938.

The dashed red line represents commercial loans of these member banks. You can see, they ran about $12,000,000,000 a year during the twenties and have since declined to a much lower level, to a figure

[1] See "Exhibit No. 607," supra, p. 3746.

that is probably half of the figure that represented such investments in commercial loans during the twenties.

Loans made on securities are represented here by the heavy red line that appears on the bottom of the chart.

Mr. NEHEMKIS. Do those loans include brokers' loans?

Dr. DAVENPORT. They would be brokers' loans and loans to individuals who were employing the money secured by the loan to purchase and hold securities. Those loans were 4.4 billion dollars in 1921. They rose rapidly during the prosperity of the twenties to a peak of 10.4 billion dollars in 1930. The depression caused a sharp drop in this use of bank credit. At the present time, security loans amount to only 3.3 billion dollars.

Mr. NEHEMKIS. Dr. Davenport, do I understand, then, that the significance of the three lines which you have just pointed to means, in effect, this, that our commercial banks are today assuming something which looks like a huge investment trust, and that depositors are in effect becoming investors? Is that correct?

Dr. DAVENPORT. To the extent of practically two-thirds of the total loans and investments we can say that today the commercial banks, or at least the member banks, which constitute the bulk of the commercial banking activity of the country, have become something which is very similar to an investment trust. The figures obtained in the table that supports the chart show the percentages as well as the absolute amounts. A study of those percentages will bear out my statement.

Mr. NEHEMKIS. May I ask at this point, Doctor, whether it is correct to say that the investment of the member banks in Government obligations has grown from around $2,000,000,000 in 1921 to over $12,000,000,000 for the year 1938?

Dr. DAVENPORT. That is substantially correct. In 1921 the investment of the member banks in all governmental obligations, all United States government obligations, stood at 2.6 billion dollars. In 1938 this amount was 12.3 billion dollars. In 1921 this class of investment amounted to only 10.6 percent of their total loans and investments; in 1938 it amounts to 40.2 percent of their total loans and investments.

To summarize, we might put it this way, that during the 1920's loans that were made for commercial purposes and loans on securities represented, roughly, two-thirds of their total loans and investments. At the present time such loans amount to only one-third of their total loans and investments. Two-thirds of their total loans and investments are in Government securities, real estate mortgages, and investments in other securities.

Mr. O'CONNELL. Dr. Davenport, did you hear Mr. Manuel's testimony this morning? [1]

Dr. DAVENPORT. I came in after the testimony had started and I am afraid that I shall have to confess that I haven't a very clear idea of his whole philosophy.

Mr. O'CONNELL. You might have heard this part of it. My understanding of what he said this morning is that that upper black line, representing investments in real estate loans made by commercial banks, which as I understand you to say constitutes about

[1] Supra, p. 3706 et seq.

two-thirds of the amount of investments, was a type of activity that in his opinion commercial banks should not be permitted to do.

Dr. DAVENPORT. I heard him make that statement.

Mr. O'CONNELL. Was that your impression of what he meant?

Dr. DAVENPORT. Yes, sir.

Mr. O'CONNELL. How would you classify the security loans, the lower line, as between—well, he divided his type of investment activity into two categories, as I recall, those which commercial banks should make and those which savings institutions should make. Do I understand that on your chart commercial loans and security loans would be within his classification of commercial bank activity?

Dr. DAVENPORT. If I understood Mr. Manuel's testimony correctly, he would consider as legitimate functions of commercial banks the financing of commercial loans, the financing of working capital, of pay rolls, and of seasonal requirements for inventories, and so on; and in addition I believe he would include, though I have not discussed the matter with him and I didn't hear all of his testimony, security loans made to individuals to enable them to purchase securities.

Mr. FRANK. I happen to have read some of his articles and I think you are in error. From his articles I think he believes that the banks should do nothing but commercial loans. I may be in error, but you can read his articles. He has had two or three in the bankers' magazines.

Mr. NEHEMKIS. In any event, I think you appreciate the witness did not indicate——

Mr. O'CONNELL (interposing). But at least it is clear that according to Mr. Manuel the upper black line represents activities into which commercial banks should not be permitted to go.

Mr. NEHEMKIS. I wouldn't care to characterize that one way or the other.

Acting Chairman WILLIAMS. How do you account for that large upswing in the heavy black line? What is the cause of that, from, say, '33 to '37?

Dr. DAVENPORT. I would say it represented the competition for investments on the part of the commercial banks. They bought Government bonds, they held their real estate mortgages to a greater extent than did the building and loan associations and the mutual savings banks, and they held approximately the same amounts of investments in other securities.

Acting Chairman WILLIAMS. The main part of that is due to investments in governments, isn't it?

Dr. DAVENPORT. It is. Investments in governments rose from 2½ billions in 1921 to 12.3 billions in 1938.

Acting Chairman WILLIAMS. Has there been any material increase in real estate loans by commercial banks in the last—that heavy upswing is between '33 and '38—5 years? Has there been any material increase in the real-estate loans during that time?

Dr. DAVENPORT. I think I can state definitely that there have been very few extensions of loans on real estate by commercial banks in that period.

Acting Chairman WILLIAMS. Then we can say as a general proposition that that large increase there is due to the investment in Government bonds.

Dr. DAVENPORT. That is right.

Acting Chairman WILLIAMS. How do you account for the decided down-swing in the commercial line there from '29 to '33?

Dr. DAVENPORT. As we went into the depths of the depression, business activity tapered off. Not only was the activity less—were pay rolls less—but the price level declined and it took less in the way of bank credit to finance what little activity was going on. Business enterprises did not have to go to the banks to finance their activity to the extent that they did during the twenties.

Acing Chairman WILLIAMS. It is a different system of financing on the part of big industry largely, isn't it, that has cut down the necessity for commercial loans?

Dr. DAVENPORT. I wouldn't say it was the only explanation. The necessity was less because the volume of activity was less. In addition we had the developments that were described to us last week by the representatives of industries, a method of financing their own requirements from their own internal funds.

Acting Chairman WILLIAMS. Then even after we started the recovery and reached the high point of '37 there was very little upturn in commercial loans.

Dr. DAVENPORT. Very little.

Acting Chairman WILLIAMS. Some, but comparatively small to what there had been.

Dr. DAVENPORT. That is right, sir.

Acting Chairman WILLIAMS. How do you account for that?

Dr. DAVENPORT. It is being done on a lower price level for one thing.

Acting Chairman WILLIAMS. And it shows still further, doesn't it, that there isn't the necessity at all for commercial loans that there used to be, that they are not using that form of credit in the commercial banks of the country that was formerly used?

(Dr. Davenport nodded his head in the affirmative.)

Acting Chairman WILLIAMS. What do you mean? I am not sure I understand your line there on security loans.

Dr. DAVENPORT. Well, if John Jones becomes convinced that a certain security offers an opportunity for a speculative profit, he may go to his bank and negotiate a loan in order to enable him to purchase that security. He may put up, we will say, on a $5,000 investment a couple of thousand dollars that he has himself, and he negotiates his loan from the bank for the balance, putting up the security as collateral. That, in its simplest term, I think, is the essential characteristic of a security loan.

Mr. FRANK. You might want to modify that slightly, Doctor. It wouldn't necessarily be for speculative purposes; it might be for any purposes; that is, a man might want to purchase a security and make a partial payment, borrowing the rest, intending later to purchase it and hold it as investment.

Dr. DAVENPORT. I will accept that modification. You are correct.

Mr. NEHEMKIS. It is true, is it not, that the sharp increase on security loans is due also, as your previous testimony indicates, to the fact that brokers utilized that technique, as well as individuals?

Dr. DAVENPORT. That is right.

Mr. TAYLOR. Dr. Davenport, if you take that line of commercial loans for the full 17-year period and break that down into, let us

say, three different lines so as to represent what you might call your one-third smaller business, or possibly it wouldn't be numerically one-third but at least the so called smaller businesses, intermediate and larger, would the three lines run about the same as that one composite line, either for the whole period or part of the period, and then not for the rest?

Dr. DAVENPORT. I am afraid, sir, I cannot answer that question on the basis of any facts at my disposal.

Mr. TAYLOR. It has a very direct bearing on a question that has received a great deal of attention recently with regard to the needs of loans by small business and I thought perhaps your statistics would throw some light on that.

Dr. DAVENPORT. I have never seen a compilation of statistics on the basis of the size of the individual loans or the size of the business enterprises for which those loans were made.

Mr. TAYLOR. You wouldn't venture a suggestion?

Dr. DAVENPORT. I am not in a position to make such a suggestion.

Mr. NEHEMKIS. Dr. Davenport, if the committee has no further questions, will you turn now to the problem of concentration of assets, touching briefly, if you will, on the concentration of assets in life insurance companies.

### GEOGRAPHICAL CONCENTRATION OF ASSETS OF SAVINGS INSTITUTIONS

Dr. DAVENPORT. The next series of charts is designed to show the extent to which the control of certain of these savings institutions is concentrated geographically and, in some instances, concentrated in the hands of individual units. There are four charts in this series, and we will pass over the four of them rather rapidly.

Mr. NEHEMKIS. Would you care to identify the chart which is now exhibited to the committee?

Dr. DAVENPORT. I identify the chart entitled "Concentration of Assets of Life Insurance Companies, December 31, 1937.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart and the accompanying table just identified by the witness.

Acting Chairman WILLIAMS. They may be received.

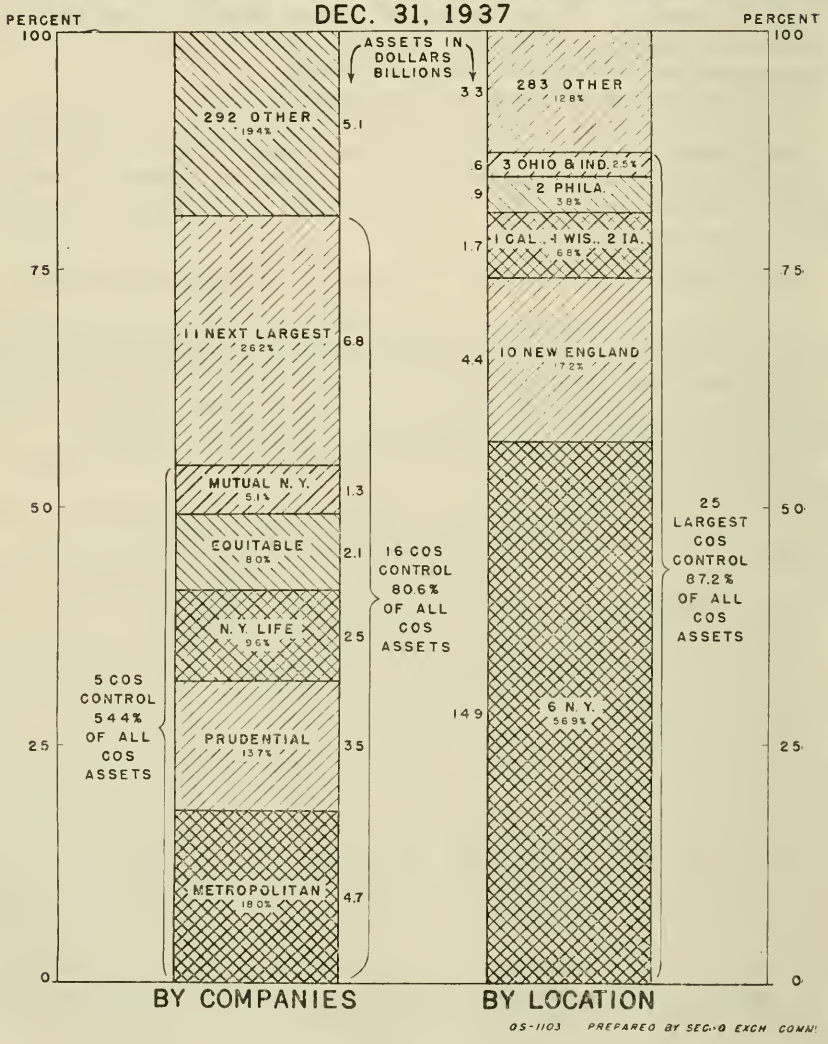
(The chart referred to was marked "Exhibit No. 608" and appears on p. 3752. The statistical data on which this chart is based are included in the appendix on p. 4057.)

Dr. DAVENPORT. We have 308 legal reserve life-insurance companies in the United States. They hold aggregate assets of approximately $28,000,000,000. If we examine the individual units, the companies that make up this total, we get a picture of a certain degree of concentration as the result of the very large size of the largest units. The largest unit is the Metropolitan Life Insurance Co., that controls 18 percent of the total life-insurance assets. The next in size is the Prudential, with 13.7 percent; the New York Life Insurance Co., with 9.6 percent; the Equitable, with 8 percent, and the Mutual of New York, with 5.1 percent. These 5 companies control 54.4 percent of the total assets of all life insurance companies. If we take the next 11 largest life insurance companies we bring the total up to 80.6 percent.

It is interesting to examine the geographical location of the control that is exercised over this great reservoir of individual savings.

EXHIBIT No. 608

# CONCENTRATION OF ASSETS OF LIFE INSURANCE COMPANIES



Six of the largest companies are in the New York City area; 4 in New York City itself; 2 in Newark, N. J., within about 10 miles of the others. Those 6 companies control 56.9 percent of the total life-insurance assets of the country. There are 10 large companies in New England that have about 17.2 percent of the total.

Mr. NEHEMKIS. Mr. Davenport, before you leave the chart, may I ask you if this might be a fair characterization, although simply put: That chart would indicate that dollars from all over the United States continue to roll into the Atlantic seaboard, and while those dollars may be ultimately reinvested in the place of their origin, control over those investments rests in the Atlantic seaboard. Is that correct?

Dr. DAVENPORT. That is perfectly true, it is the control, not the location of the investments, it is the control over the flow of these savings funds into investments that is represented by this concentration, because these companies hold farm mortgages in the Middle West, they hold home mortgages on the Pacific coast, they hold the bonds of States and cities throughout the United States.

Mr. NEHEMKIS. Doctor, I would like to ask you another question, if I may. It has been claimed that when we pay on life insurance policies we are forced to save, there is a kind of automatic saving that takes place. I wonder if you would explain that.

Dr. DAVENPORT. I don't like the term "forced to save," Mr. Counsel. No one is forced to continue payment of his life-insurance premiums. It is perfectly true that premiums on most forms of insurance contain two elements, the pure insurance element and a savings element. To that extent continuation of the payment of premiums introduces a routinized, automatic accumulation of savings to the credit of the individual policyholder. That is how the reserves of life insurance companies are built up. If they sold life insurance merely on a pay as you go basis, if all life insurance sold was merely term insurance, there would be no accumulation of reserves held by the life insurance companies. Life insurance companies would then provide a pure insurance function and not a savings function. As it is, they constitute the most important single savings process in our economy.

Mr. NEHEMKIS. And does that procedure which you have just described tend to increase the individual fund of savings regardless of investment opportunities?

Dr. DAVENPORT. Yes, regardless of investment opportunities, those funds would pile up and would accumulate in cash balances deposited in the commercial banks if the life insurance companies were unable to find suitable investments. As a matter of fact, at the present time, I think, if my memory serves me correctly, the life insurance companies have cash balances of approximately $800,000,000, and the officials of the life insurance companies repeatedly complain about the lack of opportunity for investment.

Mr. NEHEMKIS. Does that conclude your testimony on that?

Mr. HINRICHS. Mr. Davenport, am I correct in trying to relate this chart with the table which you earlier introduced on the principal savings institutions in the United States,[1] showing at the end of 1937 roughly $66,000,000,000 as the aggregate for the principal savings institutions, including life insurance, building and loan, savings

[1] See "Exhibit No. 601," appendix, p. 4052.

banks, even the social security? These six apparently control 14.3 billion dollars, which would indicate that with reference to the total amount held by the principal savings institutions these six account for about 20 to 21 percent, 21 or 22 percent of the total. Would that be correct?

Dr. DAVENPORT. I am sorry, Mr. Hinrichs.

Mr. HINRICHS. The table that I am referring to is this one on the principal savings institutions, showing a figure of $66,000,000,000 in 1937, which is the year that you have plotted in this chart of concentration of assets of life insurance companies. You show in the table that you have just introduced, 14.3 billion dollars for these six.

Dr. DAVENPORT. That is right.

Mr. HINRICHS. So it would be correct to say that these six life-insurance companies control about 21 or 22 percent of the total savings in all of the principal types of savings institutions, even going so far as to include within that category the social security funds.

Dr. DAVENPORT. Yes. I haven't my slide rule here but I think that percentage is correct.

Mr. FRANK. That is six New York companies have about 21 or 22 percent of all the savings in all savings institutions.

Dr. DAVENPORT. Yes, that is approximately correct.

Acting Chairman WILLIAMS. Doctor, do I understand now there is a growing difficulty on the part of these savings institutions to find an outlet for their funds?

Dr. DAVENPORT. Mr. Chairman, that is a complaint which they have made for several years. They are restricted as to the type of investment that they can make. These savings institutions that we have been talking about typically are restricted to investments in certain kinds of bonds and mortgages, typically they do not invest or are not allowed to invest in equities, in stocks.

Mr. FRANK. Dr. Davenport, wouldn't it be true that even if the legal list were widened and they were permitted to invest in equity securities, the very nature of the institution would preclude them from investing in venturesome investments?

Dr. DAVENPORT. That is perfectly true. I would agree to that. I would like to call your attention to the fact that it is planned, I believe, to have Mr. White, the superintendent of insurance of New York, discuss this matter of the legal list with us tomorrow or the next day.

Mr. FRANK. What I was getting at was that even if the legal list were widened so that they could purchase stocks, they would necessarily, because of the requirement of seeking safe investment, desist from investing in new ventures.

Dr. DAVENPORT. That is true.

Acting Chairman WILLIAMS. The rate of interest which these institutions pay their depositors has been considerably less during the last few years than it was formerly?

Dr. DAVENPORT. It has been reduced substantially.

Acting Chairman WILLIAMS. Has there been a corresponding reduction of the income to the institutions?

Dr. DAVENORT. Their investment income has been materially reduced by reason of reduction in interest rates. You may have noticed in this morning's New York Times that H. O. L. C. is refunding an

ssue at considerably less than it was originally brought out, I think t rates that would be almost half what it was.

Mr. Hinrichs. Mr. Davenport, is that reduction in interest rates ery largely a reflection of the shift in the type of investments that hey have in their portfolios? Has there been an equally marked eduction in the rate on policy loans or in the rate on mortgage oans as such?

Dr. Davenport. Policy loans, up until the first of this year, were ypically made at 6 percent and in some cases a little higher. There vas no reduction in the rate of interest charged policyholders for oans made by the insurance companies to those policyholders out of heir own reserves, out of reserves that belonged to the individual olicyholders. They stood at 6 percent to the first of this year. The irst of this year that interest rate has been somewhat reduced. I hink the discount rate is 5.8 percent, which figures out almost to percent for the New York Life Insurance Co., and the other com- anies had to follow suit.

Mr. Hinrichs. Isn't a policy loan virtually a risk-free loan? Is man allowed to borrow beyond the liability of the insurance com- any to the individual?

Dr. Davenport. It is a riskless loan as far as the insurance com- any is concerned. The insurance company is merely lending the olicyholder money that belongs to the policyholder, savings that ave been accumulated to the credit of the policyholder, and if the olicyholder doesn't pay back that loan, all the insurance company as to do is to cancel the policy.

Mr. Hinrichs. So that actually it is a safer loan from the point f view of the internal mechanics of liabilities and assets than a loan y the United States Government.

Dr. Davenport. That is simply a matter of taking an IOU out f one pocket and putting it into another pocket. It is a riskless oan. There is some expense attached to the servicing of such loans, f course, probably a higher degree of expense than would be the ase of handling a loan made by the United States Government, as videnced by investment in Government bonds, because these loans re in small amounts and they have to be followed up, and if they re not paid back it usually means that the policyholder has to relin- uish his insurance. The life insurance companies will tell you that f a policyholder has borrowed the full amount on his policy it usually eans a gone policy.

Acting Chairman Williams. In that connection, there has been a onsiderable reduction in real estate interest loans.

Mr. Davenport. Some, Mr. Chairman; a reduction in the mortgage oan rate has taken place. I am not prepared to say specifically how much those rates have been reduced, because they vary in different arts of the country.

Acting Chairman Williams. If those rates are reduced, as is being dvocated by a good many, the rate to the saver will necessarily be educed also, won't it?

Dr. Davenport. Yes, sir; because the saver is only entitled to a eturn that can be earned on the investment of his savings. As avings accumulate as they have and compete for the opportunities o invest, there will be a reduction in the interest rate that has taken lace.

Acting Chairman WILLIAMS. What is that rate now, the average rate of savings? What do they get, on savings?

Dr. DAVENPORT. I believe that most of the mutual savings banks now pay 2½ percent.

Acting Chairman WILLIAMS. And the commercial banks savings departments are limited, I believe, to two.

Dr. DAVENPORT. I can speak only with information from a limited area, namely, Massachusetts. There, I think you will find that the mutual savings bank will pay around 2½ percent. I don't know what the commercial banks pay on their deposits, but I should imagine that they would meet the competition in the locality in which they happen to be.

Acting Chairman WILLIAMS. There has been considerable increase, has there, in the postal-savings account during the last 4 or 5 years?

Dr. DAVENPORT. No, sir; the increase that took place in postal savings took place between 1929 and 1933. The postal savings jumped from about a quarter of a billion dollars to about 1 billion and a quarter, and they have leveled off at a billion and a quarter and show practically no deviation from that figure which they achieved in 1933.[1]

Acting Chairman WILLIAMS. That is due to insurance corporations, F. D. I. C., and Federal Savings and Loan, and such corporations?

Dr. DAVENPORT. Do I attribute it to that?

Acting Chairman WILLIAMS. Doesn't the leveling off, rather than increasing, indicate that the people themselves have confidence in the bank by reason of the Federal insurance of checking accounts of the banks and savings institutions, both of which are now insured?

Dr. DAVENPORT. That is right. I think the occasion for the rise in postal savings was the break in the confidence in the commercial banking structure of the country that occurred between 1929 and the bank holiday in 1933. It was a flight of deposits from the commercial banks which took refuge in postal savings, savings that were guaranteed by the credit of the United States Government Now, with the F. D. I. C. guaranteeing up to $5,000 of deposits, you have the same kind of Government guaranty back of the money that is deposited in the insured bank as you would have back of the money that is deposited in the postal savings. There is no occasion for the use of a less convenient form of savings than the savings department of a commercial bank; there is no occasion to go to the inconvenience of using a postal-savings deposit if you have the same confidence in the commercial bank that you have in the deposit you put in the United States postal savings.

Acting Chairman WILLIAMS. And therefore these insurance corporations have stopped the upward trend of postal savings.

Dr. DAVENPORT. Yes, sir.

Acting Chairman WILLIAMS. I mean the Government, the F. D. I. C., and the Federal Savings & Loan Deposit Insurance Corporation.

Dr. DAVENPORT. Yes.

(The Chairman, Senator O'Mahoney, took the chair.)

Mr. O'CONNELL. You were referring a few moments ago to the policy loans of insurance companies. Do you happen to know

[1] See "Exhibit No. 601," appendix, p. 4052.

whether, as a practical matter, a policyholder has any access to the commercial banks or the banks in the country for the purpose of borrowing money on his policy?

Dr. DAVENPORT. Yes, sir. There are banks in the vicinity of New York that advertise in the papers that they will lend policyholders as much as the policyholders can borrow from their own insurance companies, at 3½ percent instead of at 6 percent, the insurance companies' charge. Those advertisements appear in the financial pages of the New York papers.

Mr. O'CONNELL. Do you know whether that practice is general or, rather, whether it is recent or confined to the area around New York? I hadn't heard of it before.

Dr. DAVENPORT. I have no knowledge that it exists in other parts of the country, but I see no reason why an enlightened policyholder would not try to borrow at the lowest rate he could on an asset as sound as a life insurance policy, and go to his commercial bank and offer that as collateral.

Mr. O'CONNELL. Also, you see no reason why an enlightened bank would consider that an avenue for investment, a riskless loan?

Mr. HINRICHS. Excuse me, it is not a riskless loan in this case, is it? Now you are introducing a lower rate offered by the banks which are accepting the risk of the credit standing of the insurance company itself. As far as the insurance company and the policyholder are concerned, if the policyholder is in up to his neck the insurance company can't lose even if it is insolvent, if such a thing were conceivable in the case of a small insurance company. In the case of a loan made by a bank, the bank is taking the risk of the solvency of the insurance company.

Mr. FRANK. Doctor, you wouldn't consider it much of a risk to lend on an obligation of the Metropolitan Life Insurance Company, would you?

Dr. DAVENPORT. Was that question addressed to me, Mr. Frank?

Mr. FRANK. I mean if you were a commercial banker you wouldn't think a loan secured by them——

Dr. DAVENPORT (interposing). I should have no hesitation whatever in lending the Metropolitan Life Insurance Co. any amount I was able to lend.

Mr. FRANK. For practical purposes, then, it might be called riskless.

Dr. DAVENPORT. Mr. Hinrichs pointed out that some of the smaller companies might not be in such an enviable position.

The CHAIRMAN. But some of these institutions which advertise the willingness to make such loans of course reserve to themselves the right to reject a policy in an insurance company in the strength of which they would not be satisfied.

Dr. DAVENPORT. Yes, sir.

Mr. NEHEMKIS. Are you prepared to continue your discussion of the concentration of assets?

Dr. DAVENPORT. I am, Mr. Counsel. We have just discussed concentration of the control of the assets in the process that is represented by this bar of the life-insurance companies. We now turn to a discussion of the concentration of the control over the assets of the mutual savings banks. I identify a chart entitled "Concentra-

tion of Assets of Mutual Savings Banks, January 1, 1939," together with supporting data.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart just described by the witness.

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 609" and appears on p. 3759. The statistical data on which this chart is based are included in the appendix on p. 4059.)

Dr. DAVENPORT. The mutual savings banks have aggregate assets of $11,570,000,000. The extent to which those assets are concentrated in certain geographical areas is represented by the first bar on this chart. The height of the bar is represented by 100 percent, 11.57 billion dollars. The largest segment of the bar that appears at the base is that for New York State. There are 134 mutual savings banks in New York State. The total of the assets of those savings-banks accounts for 53.64 percent of the total assets of all savings banks in the United States.

The CHAIRMAN. Of all savings banks or of all mutual savings banks?

Dr. DAVENPORT. All mutual savings banks, Mr. Chairman. In fact, 42⅓ percent of the assets of all mutual savings banks is located in New York City. The other States of importance are, in order of importance, Massachusetts, Connecticut, Pennsylvania, and New Jersey. These five States together contain 89.75 percent of the control over the assets of the mutual savings banks.

The second bar on the chart is intended to show the extent to which the control over these assets rests with individual institutions, and for that purpose we have picked out the 25 largest mutual savings banks. The largest mutual savings bank is represented by the segment of the red bar at the bottom, the Bowery Savings Bank. That has approximately $600,000,000. The next in order of size is the Emigrant Industrial Savings Bank, also of New York City, with $500,000,000 of assets. The 25 largest mutual savings banks have 41½ percent of the total. Five hundred and eighteen smaller banks have the balance.

Mr. NEHEMKIS. Doctor, isn't it somewhat anomalous that that concentration to which you have just referred should be in the East and so highly concentrated in the few States that you have pointed out? How do you explain that?

Dr. DAVENPORT. The organization of mutual savings banks goes back 122 years. They were established in the Eastern States at a time when the commercial banks were not performing a savings function. Later on with the development of our banking system the national banks and the State banks assumed this savings function so as other sections of the country were established, and as they were equipped with commercial banks, there was no necessity for organizing mutual savings banks in those areas. There are, I think, 16 different States that have mutual savings banks.

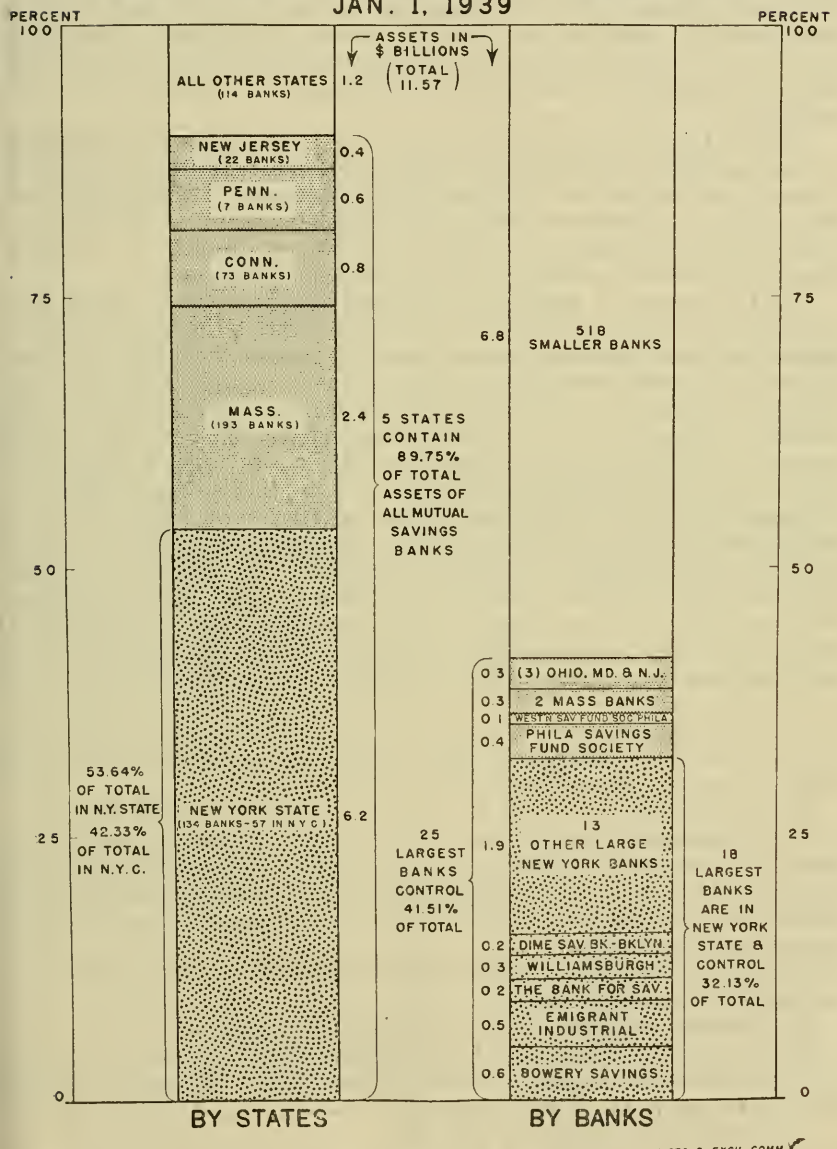
Mr. TAYLOR. To what extent are the investments of those savings banks in New York City outside New York City and the surrounding areas?

Dr. DAVENPORT. Generally speaking, between 40 and 50 percent of an individual mutual savings bank's assets are invested in the local real estate mortgages. The balance of their assets they invested in the legal list of securities, which may include United States Government

EXHIBIT No. 609

# ASSETS OF MUTUAL SAVINGS BANKS

## JAN. 1, 1939

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bonds. Usually the State requires that investment in State municipal bonds must be of the State in which the bank is located.

Mr. Taylor. Presumably a fair proportion must be in fairly distant sections of the country, since you have the concentration of the investment itself so definitely in these States.

Dr. Davenport. That is perfectly true. To the extent that 40 or 50 percent of their assets are represented by real estate mortgages, we can say that it goes back into the community from which the principal savings came, but to the extent that they buy railroad bonds or public-utility bonds or A. T. & T. stock—I will take that back; they don't buy stock as a rule—to the extent that they buy the bonds of an industrial corporation, those savings are spread out over the country.

Mr. Taylor. Would you have any way of knowing what percentage of outstanding real-estate bonds of a city like Chicago are held by the savings institutions in New York? Chicago, I understand, has practically no important savings institutions such as life-insurance companies or even larger savings banks and yet there must be a great deal of real estate which is held by these institutions.

Dr. Davenport. I think you will find the State laws where these mutual savings banks are located usually restrict the kinds of mortgages that they can take to mortgages on property within the State. There is no such restriction on investments of life-insurance companies, and they do buy mortgages on farm properties all over the country. They are truly national institutions. The mutual savings banks are typically local institutions. It is also true, I might add, that the people who deposit savings in the mutual savings banks predominantly live in the areas where their bank is located, but an individual who has a deposit, let's say, in the Bowery Savings Bank, and who moves down to Washington to work and takes his residence in Washington, probably continues to bank by mail with the Bowery Savings Bank in New York. That is equally true with respect to the building and loan associations. Many of them do quite a sizeable mail business in the acceptance of savings deposits from people all over the country.

Mr. Taylor. In other words, in a case of this type of institution you may have the investment of the savings more highly concentrated than the savers themselves.

Dr. Davenport. It would be possible to have that, that is true.

Mr. Nehemkis. Doctor, may I ask you to hazard a guess as to what the percentage of concentration in New York would be if you combined the concentration of assets of life insurance companies to which you have just referred and the concentration of assets of our mutual savings banks.

Dr. Davenport. Mr. Counsel, if you will reserve that question for a moment, I am coming to it.

Mr. Nehemkis. Fine, I will withdraw the question.

Representative Williams. In connection with the chart you have just had there that covers, as I understood it, only the mutual savings banks.

Dr. Davenport. That is right, sir.

Representative Williams. Do they cover the field of savings banks pretty generally or what are the stock savings banks?

Dr. DAVENPORT. The stock savings banks are of relative insignificance and they are classified with the commercial banks now in all of the reports made to the Comptroller of Currency.

Representative WILLIAMS. So the chart which you first had here, the one of individual savings invested in long-term debts and equities,[1] refers to the mutual savings banks only, does it?

Dr. DAVENPORT. This process is mutual savings banks only.[2] The process that is represented by "Deposited in commercial banks," the balance in the savings departments of commercial banks, would include what savings funds were entrusted to the stock savings banks. They are relatively few so called stock savings banks.

Representative WILLIAMS. Now, we do have some stock savings banks which are purely savings institutions as distinguished from commercial banks.

Dr. DAVENPORT. That is right; there are still a few of them.

Representative WILLIAMS. A few of them.

Dr. DAVENPORT. They used to be much more numerous than they are today.

Representative WILLIAMS. That is all. I just wanted to distinguish between the mutual and the stock savings banks.

Dr. DAVENPORT. I would say the total assets—and that would include capital stock and surplus belonging to the stockholders of the stock savings banks—probably the total assets, capital stock, and surplus and savings deposits in the hands of the stock savings banks would be a matter of perhaps $300,000,000.

Mr. NEHEMKIS. Doctor, are you prepared to continue your discussion with the concentration of assets of commercial banks?

Dr. DAVENPORT. I identify the chart entitled "Concentration of Assets of Commercial Banks in the United States, December 31, 1938."

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart just identified by the witness.

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 610" and appears on p. 3762. The statistical data on which this chart is based are included in the appendix on p. 4060.)

Dr. DAVENPORT. We now pass to a consideration of this savings process that was represented by the square up here.

The CHAIRMAN. Please refer to the chart so that the record will show.

Dr. DAVENPORT. Thank you. On the large chart entitled "Individual Savings Invested in Long-Term Debts and Equities,"[3] at the time when we first discussed this large chart we pointed out the significance of the savings processes involved in the accumulation of individual savings by commercial banks. That process had accumulated a total which was 14.67 billion dollars in 1938. These savings deposits or time deposits of the commercial banks are represented on the chart entitled "Concentration of Assets of Commercial Banks in the United States" by the bar to the extreme right; the height of that bar on this scale is 14.67 billion dollars. The bar is segmented to show the geographical location of the assets held as time deposits in the commercial savings banks.

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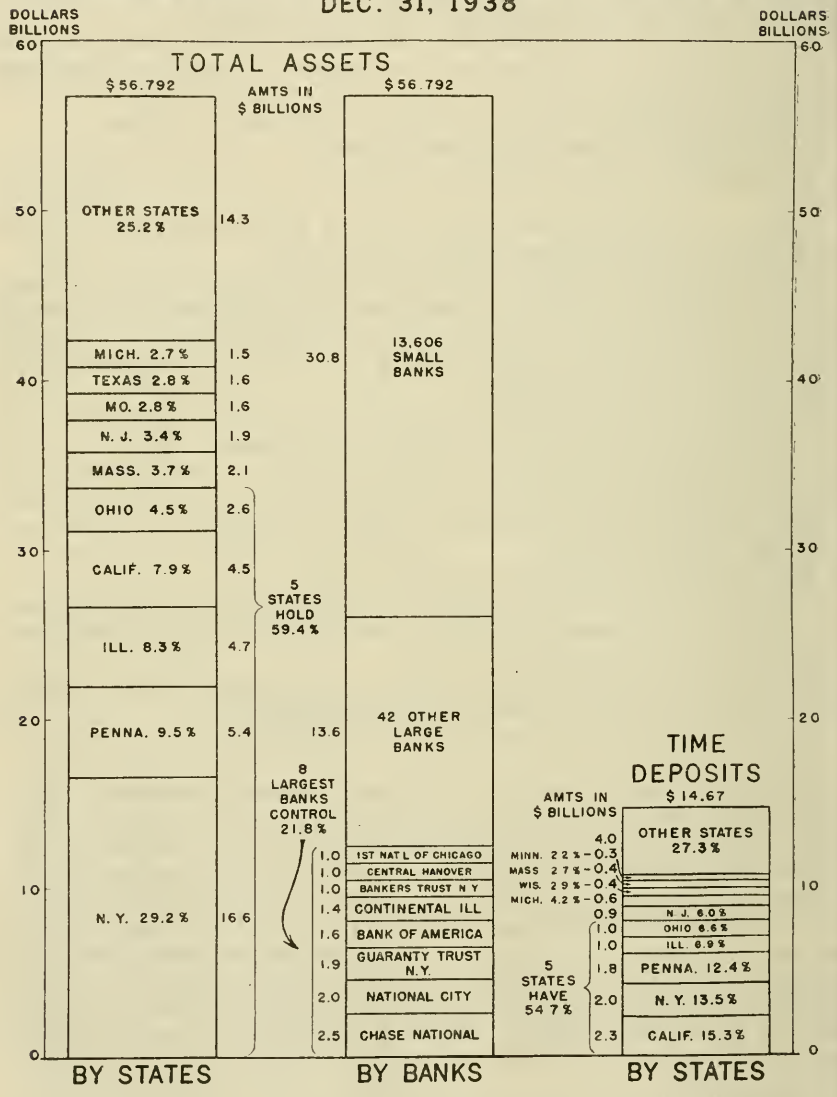
[1] Referring to "Exhibit No. 600," supra, facing p. 3727.
[2] Ibid.
[3] Ibid.

EXHIBIT No. 610

# CONCENTRATION OF ASSETS OF COMMERCIAL BANKS IN U.S.

DEC. 31, 1938

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You will note that California is the largest State with respect to the use that is made by individuals of the savings or thrift departments of commercial banks for the accumulation of their savings.

The CHAIRMAN. This is the first time on any of these charts in which a Western State appears as holding the largest amount of any kind of savings or commercial assets.

Dr. DAVENPORT. That is right, Senator.

New York had to give first place to California. New York takes the second place with respect to this matter of time deposits. New York accounts for 13.5 percent of the total of such individual savings. Pennsylvania is third with 12.4 percent; Illinois fourth with 6.9 percent; Ohio comes next with 6.6 percent, and New Jersey next with 6 percent.

The other two bars show us the picture of concentration of total assets, not merely the assets that were accumulated through individual savings, but total assets of commercial banks. These assets amounted to 56.79 billion dollars in 1938.

Now, we have to give first place again to New York. New York holds 29.3 percent of the total, Pennsylvania 9.5, Illinois 8.3, California 7.9, Ohio 4.5, Massachusetts 3.7, New Jersey 3.4, Missouri 2.8, Texas 2.8, Michigan 2.7. The five largest States in this regard hold 59.4 percent of the total commercial banking assets of the country.

If we now turn to the middle bar, we can get some idea of the relative importance of the individual banks in this respect. We have selected the eight largest banks for individual attention. The largest single commercial bank in the country is the Chase National Bank, New York City, and it holds assets of two and a half billion dollars. The National City Bank, of New York City, has about two billion dollars. The Guaranty Trust Co., 1.9 billion dollars; the Bank of America, 1.6; Continental of Illinois, 1.4; Bankers Trust of New York a billion, the Central Hanover a billion, and the First National of Chicago a billion. These eight largest commercial banks control 21.8 percent of the total. There are 42 other large banks among the fifty largest banks of the country that account for this segment here, and after that we get down into smaller banks and we find that the balance of the banking assets are divided among 13,606 smaller banks.

The CHAIRMAN. Before that chart is taken away, do I understand that the 50 largest banks control 35.4 percent of all of the assets? No; that represents dollars, I see.

Dr. DAVENPORT. The scale is in billions.

The CHAIRMAN. What percentage of the deposits do the 50 largest banks control? Have you figured that out?

Dr. DAVENPORT. I haven't the percentage on my chart, but it looks to me as though it would be about 45 percent of the total, Mr. Chairman.

The CHAIRMAN. It would be just a question of totalling up the deposits in each instance and making a percentage calculation.

Mr. NEHEMKIS. We should be very glad to give you a memorandum on that.

The CHAIRMAN. It is not necessary; it is perfectly obvious.

Dr. DAVENPORT. I identify chart entitled "Concentration of Assets in Principal Reservoirs of Savings, 1937."

Mr. NEHEMKIS. Is this a composite chart, sir?

Dr. DAVENPORT. This is a composite chart which contains the assets of life insurance companies, all savings deposits, whether in mutual savings banks or in commercial banks, and all assets of building and loan associations. These savings reservoirs represent a total of 56.5 billion dollars out of a total of approximately 66 billion dollars. I can give you the exact figure for the record.

The CHAIRMAN. Now, you have all the savings institutions?

Dr. DAVENPORT. No, Senator. This is merely the life-insurance companies, the building and loan associations, the mutual savings banks, and the savings departments of commercial banks, those processes which we could readily allocate by States for which we have information. We can't allocate the social security fund precisely by States; we have no way of allocating the railroad retirement fund by States; and no figures readily available to allocate the fraternal insurance fund by States.

Mr. FRANK. If you added those omitted items, how many billion dollars would it add?

Dr. DAVENPORT. The total was approximately 66 billion dollars, so it would add 10 billion dollars to this figure. But for this figure, this fund of 56.5 billion dollars in 1937——

Mr. FRANK (interposing). Which is more than five-sixths of the total.

Dr. DAVENPORT. Right. It was possible for us fairly readily to allocate the control over that by States, and that is the purpose of this chart before you.

The CHAIRMAN. I observe that California now disappears from the identifiable States.

Mr. FRANK. Is Wyoming identifiable?

The CHAIRMAN. It is one of the other States.

Mr. NEHEMKIS. May I offer the chart just identified and the supporting table?

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 611" and appears on p. 3765. The statistical data on which this chart is based are included in the appendix on p. 4062.)

Dr. DAVENPORT. The scale on the left of the bar is in percent. The height of the bar represents 100 percent. The figures to the right of the various segments of the bar are in billions of dollars. New York State controls one-third, precisely one-third, of the total of this 56.5 billion dollars. There is another third that is contained in the next four largest States—New Jersey, Massachusetts, Pennsylvania, and Connecticut. These five States in the northern section of the country together account for 67 percent of the total. The other States account for a third, the balance.

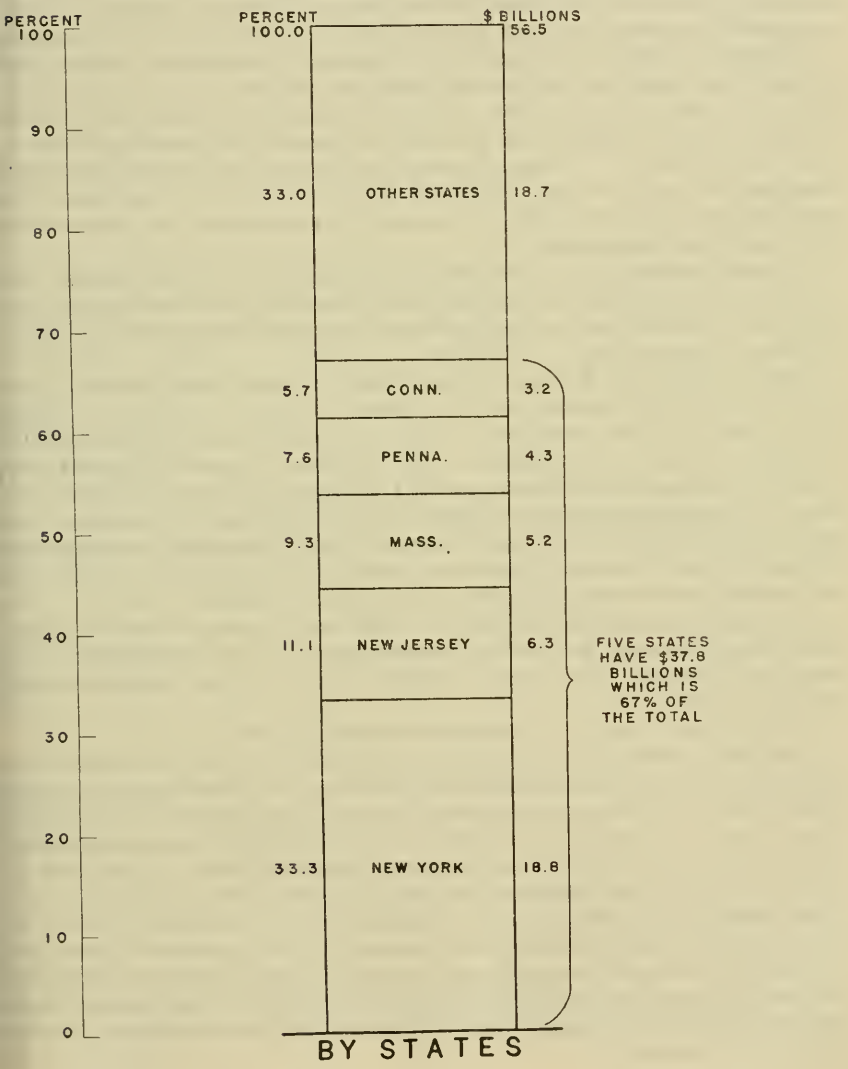
The CHAIRMAN. When you refer to assets you mean, of course, all of the property of every kind and character which is owned by these institutions as a result of the manner in which the savings deposits have been handled?

Dr. DAVENPORT. These assets have been created through the accumulation of individual savings, and they are held for the account of the individual savers by these great savings institutions.

EXHIBIT No. 611

# CONCENTRATION OF ASSETS IN PRINCIPAL RESERVOIRS OF SAVINGS*

1937




* LIFE INS COS., SAVINGS DEPOSITS IN ALL BANKS, & BLDG & LOAN ASSOCIATIONS

OS-1215 PREPARED BY SEC & EXCH COMM

The CHAIRMAN. Have you any idea to what extent savings of this character flow into these five States from the other States?

Dr. DAVENPORT. Unfortunately there is little information about the location of the individual savers. We do know that the building and loan association is a local organization and predominantly the members are people who live right in that community. That institution finances the home ownership of the people who live in that community. Typically they do not go out of a radius that can be reached by the directors of the individual locations, let's say during a lunch time, to investigate whether or not a mortgage of $2,000 on John Jones' property is a safe investment for them to make or not. That is not true with respect to life insurance companies. Their funds are obtained from all over the United States. Most of these big companies do business in every State in the Union and the life insurance companies in New York and New England, constitute a syphon that draws in savings in the form of premium payments into these States. Their investment procedure, the purchase of farm mortgages in the Middle Western States, the purchase of municipal bonds of cities all over the country. In that process the directors of the life-insurance companies decide where they will place those funds and how they will be put to work. But the control is represented by figures that we have just presented.

The CHAIRMAN. And the whole economy of the whole people, and of the whole 48 States, depends upon the skill with which that discretion is carried out by the persons who are directing the investment of these huge savings.

Dr. DAVENPORT. A great responsibility rests upon the skill and wisdom of the directors of these great savings institutions. There is no dodging that question. They hold and control $67,000,000,000 of assets. That is equivalent to the national income in a good year.

Mr. NEHEMKIS. Dr. Davenport, I don't believe the chairman was here this morning when you discussed the reservoirs of savings [1] and pointed out that in that reservoir entitled "Entrusted to Corporate or Individual Trustees" there were assets which, in your opinion, you estimated to be $50,000,000,000. Was that correct?

Dr. DAVENPORT. That is correct. We have estimates made within the Securities and Exchange Commission by the Trading and Exchange Division that would place that total at approximately $50,000,000,000.

Mr. FRANK. That is in addition to these figures?

Dr. DAVENPORT. That is quite in addition to what we have been talking about. We have been talking about the great savings institutions, the life insurance companies, mutual savings banks, the savings departments of commercial banks, and building and loan associations. They are the institutions we have been talking about. They are the institutions that accumulate the savings from individuals and pour them down into what we have termed "long term debts"—into the bonds of the United States Government, in the bonds of States and cities, into bonds of our railroads, the bonds of our utilities and of our industrial corporations. They are the institutions that finance farm mortgages, the mortgages on our homes, and the mortgages on our large city properties.

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[1] "Exhibit No. 600," supra, facing p. 3727.

Mr. NEHEMKIS. And it is true, is it not, Doctor, that the assets in the bar which you have now represented by a question mark are,[1] roughly speaking, twice the size of the assets of our legal reserve life-insurance companies?

Dr. DAVENPORT. Very roughly speaking, twice the size. The assets of the legal reserve life insurance companies are about $28,000,000,000 and this is about $50,000,000,000.

Mr. NEHEMKIS. And the bulk of those assets, would you be willing to hazard a guess, likewise rests in the eastern seaboard?

Dr. DAVENPORT. I think there is no question about the fact that the control over those assets rests primarily in New York City.

The CHAIRMAN. On what do you base that conclusion, Dr. Davenport? Of course, it is a point of tremendous significance, but you have chosen, in the preparation of your chart, to mark it by a question mark, thereby indicating that you are not definite about it.

Dr. DAVENPORT. We do not know how that money is invested, Senator.

The CHAIRMAN. How do you arrive at the approximate estimate of $50,000,000,000?

Dr. DAVENPORT. We do know this: We know that the national banks that have been permitted to establish trust departments report to the Comptroller of the Currency that they hold in those trust departments approximately $10,000,000,000. The national banks have never gone in in a big way for this type of trust work.

The CHAIRMAN. Those $10,000,000,000 are not included in any of these other charts that you have compiled?

Dr. DAVENPORT. No, sir; they are not included in these processes at all.

The CHAIRMAN. What do you add to that to get your $50,000,000,000?

Dr. DAVENPORT. You add to that the trust estates held by the great State trust companies, the great State commercial banks and trust companies like the Bankers Trust of New York, for example. And then I should add that the State trust companies have made a definite effort to specialize along this line and they are not as restricted as the national banks are in their efforts to develop this type of business.

In addition you have huge amounts held by private trustees, the great foundations, the charitable organizations, the Rockefeller Foundation, and the Mellon fund and funds of that type.

The CHAIRMAN. Thank you very much.

Representative WILLIAMS. Let me ask you, Doctor: I understood you to say a while ago that the savings institutions were having some difficulty in finding an outlet for their funds.

Dr. DAVENPORT. That is correct, sir.

Representative WILLIAMS. By reason of that has there been an accumulation of idle money in these institutions?

Dr. DAVENPORT. Yes, sir; to the extent that you can call about $800,000,000 that belongs to life-insurance companies that is deposited in commercial banks—idle money. They are not using it. They have that to the credit of their checking accounts. If they had had adequate opportunities for investment, those funds would undoubtedly be much smaller.

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[1] "Exhibit No. 600," supra, facing p. 3727.

Representative WILLIAMS. What about the funds that are on deposit with the commercial banks on time? Have they accumulated as they have in the checking accounts and are simply lying there uninvested?

Dr. DAVENPORT. One of the charts that I showed you this morning had on it a line that represented the growth in time and savings deposits of commercial banks.[1] That line showed a tremendous drop from 1930 to 1933 by reason of withdrawals on the part of depositors for cash needed to compensate for reduced income, reduced wages, and salaries, and also a considerable amount of loss as a result of the failure of individual banks, the freezing of those savings. The low point was reached in 1933. Since then there has been increased accumulations in the savings departments of these commercial banks.

Representative WILLIAMS. What about the mutual savings?

Dr. DAVENPORT. The mutual savings banks never suffered to the extent that the commercial banks did during the depression. There were very few mutual savings banks that failed. There was a decrease in the total amount of their assets at one point in the depth of the depression, but almost immediately the line showing their total assets started an upward movement, and today it stands at its all-time peak.

VOLUME OF FUNDS AVAILABLE FOR INVESTMENT

Representative WILLIAMS. Have you any figure which shows at least approximately the amount of funds available in these savings institutions that are not invested?

Dr. DAVENPORT. I have for two institutions, life insurance companies and mutual savings banks. The figures of the cash balances to their credit at the end of 1938 are contained in exhibits that show the consolidated balance sheets of those institutions.[2] For the life insurance companies it was about $800,000,000 in cash that they held. For the mutual savings banks that do not do checking business, when they pay out money they have to send it through the mail. They pay out by a check drawn on a commercial bank where they keep a checking account. The mutual savings banks of the country carried, I think the figure was, about $500,000,000 on deposit in commercial banks.

Representative WILLIAMS. That would make a billion three hundred million in those two institutions of cash available for investment.

Dr. DAVENPORT. They would normally keep some cash on hand, but theirs is a continuous process. Money is coming into these institutions all the time and going out all the time, so that the amount they would have to keep would be relatively small.

Representative WILLIAMS. Have you any figure on the amount of savings accounts in the commercial banks?

Dr. DAVENPORT. Unfortunately I cannot give you that figure. It is not broken down that way.

Representative WILLIAMS. I am wondering whether or not there has been an accumulation during the last few years of these reserve funds in these savings institutions that cannot or have not been invested.

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[1] See "Exhibit No. 601," supra, p. 3735.
[2] See "Exhibit Nos. 608 and 609, appendix, pp. 4057 and 4059.

Dr. DAVENPORT. We have the figures of excess reserves, which I quoted this morning, which is an evidence of the extent to which commercial banks have been unable to find outlets for the money at their disposal.

Representative WILLIAMS. That is the commercial banks.

Mr. FRANK. What was that total?

Dr. DAVENPORT. Four billion dollars.

The CHAIRMAN. That, of course, is separate and apart from the $1,300,000,000 of the life insurance companies and the mutual savings banks to which you have just referred—or is it?

Dr. DAVENPORT. The life insurance companies and mutual savings banks are mere depositors, just like you and I would be.

The CHAIRMAN. What I am trying to find out is whether that billion three hundred thousand should be added.

Dr. DAVENPORT. No; it should not, sir.

The CHAIRMAN. Then the 4 billion plus represents, so far as you can approximate it now, the total amount of accumulated savings for which no investment has been found as of this time.

Dr. DAVENPORT. I should hesitate to put it in precisely that language because that $4,000,000,000 of excess reserves cannot properly be allocated solely to the savings departments.

The CHAIRMAN. Yes; I realize that, but I was referring to savings here without regard to whether the money was deposited in a savings institution or a savings department but rather to include all unused funds which are available for use, would that be correct?

Dr. DAVENPORT. I think I should agree with that, Senator. Of course, you might point out that investments would not be made in securities that yielded as low a return as, let's say, some of the certificates and notes, short time certificates and notes of the United States Government, if there existed opportunties that would give a higher rate of return.

The CHAIRMAN. Not only does the United States Government borrow money at very small interest rates, but some of the large corporations, like the United States Steel Corporation, borrow at a very low rate of interest.

Dr. DAVENPORT. That is true, sir.

The CHAIRMAN. So that actually one might add at least a portion of the amount of money loaned to the United States Government and to large corporations at these very low rates of interest to the total of accumulations which are not working in constructive investment at the moment. Is that correct?

Dr. DAVENPORT. They certainly would be put to other uses if the other opportunities existed.

The CHAIRMAN. Proceed.

NUMBERS OF PEOPLE SAVING THROUGH SAVINGS PROCESSES 1920–1938

Dr. DAVENPORT. I identify a table entitled "Data Reflecting the Number of Persons Employing Various Savings Processes, 1920, 1930–38."

Mr. NEHEMKIS. I offer in evidence the table just identified by the witness.

The CHAIRMAN. It may be received.

(The table referred to was marked "Exhibit No. 612" and is included in the appendix on p. 4063.)

Dr. DAVENPORT. The question naturally arises as to the reasons for the concentration.

The CHAIRMAN. Before you go to that, let me ask you in what sense in this table you use the word "employing."

Dr. DAVENPORT. Making use of.

The CHAIRMAN. All right, making use of by depositing or by using the deposits.

Dr. DAVENPORT. Not using the deposits. For example, the number of policies.

The CHAIRMAN. You mean the number of persons who are making the investments or making the savings?

Dr. DAVENPORT. Making the savings, that is it.

The CHAIRMAN. That is what I wanted to get. Proceed.

### RELATION BETWEEN THE GROWTH OF SAVINGS INSTITUTIONS AND THE GROWTH OF URBAN ECONOMY

Dr. DAVENPORT. I started to say, the question naturally arises as to the reason for the control that exists in these savings funds on the Eastern Seaboard, principally in the five States—New York, New Jersey, Pennsylvania, Connecticut, and Massachusetts.

I think the principal reason for this lies in the essential industrial and urban character of those five States and the fact that they were the first States to be so industrialized and so urbanized. The accumulation of savings by individuals is the way in which they purchase their own social security. These institutions were first established—savings banks were established 122 years ago; the first building and loan association probably 115 years ago; the first life-insurance companies probably 102 years ago. These institutions were established by socially minded leaders in these communities that recognized that an important change had taken place as soon as we developed city and industrial populations dependent solely upon cash wages paid to them, not only for their current living but for their claim on the product that would be produced in future years, and who depended upon their cash salaries or wages to tide them over a time when they might be too old to participate in the productive processes. It became evident with the development of our first cities and our great industrial centers as soon as the depression fell upon those centers that we had these large numbers of wage earners who had not practiced frugality and thrift and were consequently a charge upon the charity of the community.

Socially minded citizens conceived of the idea of organizing institutions that would stimulate and implement thrift on the part of wage earners. And the idea of thrift and frugality was taught and these institutions were set up almost as philanthropic institutions, and the men at the head of them usually took no salary and considered that they were rendering a public service of great importance, as so they were. It soon became apparent that the benefits of these savings institutions had two different aspects. Their chief objective was, of course, to encourage the thrift of individuals and to provide a method which would enable persons with small incomes to accumulate a reserve from their wages and salaries. Such funds furnished

assurances that they would be able to take care of themselves and would not become charges to society or burdens to their friends and relatives.

On the other hand, these institutions provided a mechanism for the collection of funds which were needed for the building of our railroads, the expansion of our industries, the construction of our homes, and the provision of utilities in our rapidly developing cities. Thus the savings institutions facilitated the processes of industrialization and urbanization and assisted in providing proper homes and security for the industrial workers.

Although these three types of savings institutions continued to grow with the industrial development of the country and the growth of population, they met with varying degrees of success. The savings banks undoubtedly made the greatest headway up to 1900. In that year mutual savings banks had deposits of only $2,000,000,000 belonging to 5,000,000 depositors. The life-insurance companies doing business in 1900 had only 3,000,000 ordinary policyholders and 11,000,000 industrial policyholders. The admitted assets back of these policies amounted to about $1,700,000,000 in 1900. The building-and-loan associations of that year had 1½ million members and assets of $614,000,000. In comparison with their present magnitude, they were relatively unimportant.

These figures, however, are impressive evidence of the need that was served by the savings institutions during the industrial development of the nineteenth century. They bear witness of the thrift of these millions of persons and they demonstrate the ability of our economic system to enable workers to purchase their own security out of current income. However, impressive as they are, they fade into insignificance when we examine the situation 30 years later—1930.

In 1930 the total savings deposits in mutual savings banks amounted to $10,000,000,000. That is in the first 30 years of the twentieth century, while population increased from 76,000,000 to 123,000,000, a growth of 61 percent, savings-bank deposits in mutual savings banks grew 331 percent. Nor was this all. In the meantime the State and national banks, envious of the success of the mutual savings banks, had entered the savings-deposit business. In 1930 the total savings deposits in the mutual savings banks and in the savings departments of commercial banks amounted to $29,400,000,000. How many million people contributed to this huge fund, no one knows.

The Comptroller's Report gives the number of depositors for that year as 52,000,000 people, but, of course, there were many duplications where depositors had more than one account. No matter how much these figures are discounted we cannot escape the conclusion that the hopes of a very large percentage of the population were centered in their savings deposits.

Some idea of the relative importance of this huge savings fund is obtained when compared with the regular bank deposits subject to check of the same year—1930. Demand deposits of that year totaled $25,200,000,000. In other words, savings deposits accounted for over half of the total bank deposits. Of course, not all of the savings deposits were made by people of small incomes, but typically this was true. Wealthy people had other opportunities for invest-

ments and were not satisfied by the small interest rates paid on savings accounts. The number of deposits indicates clearly this situation is primarily an institution of the great middle class.

Life insurance also experienced a phenomenal growth in these 30 years. The admitted assets of one billion seven hundred million in 1900 jumped to eighteen billion eight hundred million in 1930. The funds accumulated to the credit of life-insurance policyholders as reflected in the admitted assets of legal reserve life insurance companies was 10.8 times what it had been in 1900. That is, in the period of 1900 to 1930 these assets grew more than tenfold.

In 1930 there was a total of $108,000,000,000 worth of life insurance in force—the face value of the policies in force. Of this, 90 billion was ordinary insurance. The balance, $18,000,000,000 represented the industrial insurance written for amounts under $1,000. This insurance was held in 33,000,000 ordinary policies and 89,000,000 industrial policies, a total of 122,000,000 policies. Of course, this did not mean 122,000,000 separate individual policyholders, as there were many who owned more than 1 policy. It has been estimated, however, that this insurance covered the lives of no less than 60,000,000 separate individuals, roughly 1 out of every 2 men, women, and children in the United States.

Turning now to the building and loan association, we found in 1900 they had 1½ million members and controlled assets of $600,000,000. By 1930 there were 12 million members of the building and loan associations and they had assets of $8,800,000,000.

The assets of these institutions in 1930 were 14.4 times as large as they were in 1900.

To comprehend the importance of the forces represented by these institutions we must view them not as separate organizations, but as parts of a whole. When we examine the savings accumulated by all three types, we are impressed not only by their magnitude but by the great rapidity of their growth. Total savings in the 20 years from 1910 to 1930 increased 382 percent. In this same interval, 1910 to 1930, the population of continental United States showed a growth of only 33½ percent. With aggregate assets of over $56,000,000,000 invested in high grade bonds and mortgages, the savings institutions entered the great depression of the thirties in a new position, a position quite different in importance from what it had been in previous depressions. This was the first great depression in which the fate of the creditors affected such a large proportion of our city population and carried grave political consequences.

The year 1930 found the funds in our savings institutions at their record height up to that time. Unemployment and reduced wages and salaries which came with the depression presented some of the contingencies against which that fund had been accumulated by individual savers. As the depression continued and conditions grew worse, savings were drawn upon to ease the burden of unemployment and reduced incomes.

Between 1930 and 1933, savings and time deposits declined $8,000,000,000. The total number of savings and time depositors dropped from 53,000,000 to 40,000,000. The persons who either lost their savings accounts or were forced to close them out numbered 13,000,000. Life-insurance savings were also sacrificed in this emergency. Some policyholders were forced to borrow on their policies, to let

them lapse, or to surrender them entirely. The number of policies lapsed, surrendered, and purchased was over twice as large in 1933 as in 1930, and loans on policies in this period increased by a third. In these 3 years the number of policies in force declined from 122,000,000 to 113,000,000 and the amount of ordinary insurance in force dropped 9 percent. However, the admitted assets of the life insurance companies continued to increase.

The building and loan associations also felt the strain of depression as their members were forced to withdraw savings and as deflation reduced the value of their assets. Between 1930 and 1933 membership dropped from 12,000,000 to 9,000,000, and the assets declined about $2,000,000,000.

The significance of this savings fund flows more from the nature and number of the group protected by it than from its huge size. Information concerning the characteristics of the individuals who make up this thrift group is not available in statistical form to any great extent. We do know, however, that in general it is made up or composed almost entirely of people living in the industrial States. The precise number of persons with an interest in this fund is unknown even today. All that is known is that as a group they have 44,000,000 savings accounts, they own 124,000,000 life-insurance policies, and over 6,000,000 of them own shares in building-and-loan associations. Even though these figures must be shaded somewhat to allow for duplications, it is clear that a very large number of persons in this country rely today upon the savings institutions. Moreover, the evidence is that the savings institutions are continuing their vigorous growth.

These millions of savers, policyholders, depositors, members of savings and loan associations, are predominantly located in great cities. Farmers have little occasion to use the mutual savings bank. Life insurance officials will tell you that farmers do not constitute a very good prospect for life insurance.

I said a moment ago these millions of savers are located predominantly in our great cities. It is important to realize that these savers in our great cities constitute the principal market for the products of our factories. Anything that shakes the confidence of the savers in their savings institutions, anything that weakens their confidence in the solvency of these institutions changes their habits in buying and in consuming products. They tighten their belts, they postpone purchasing anything except necessities. The result is a decreased demand, a decreased production, and a decreased employment.

We have given hostages to fortune to the extent that we have placed such huge sums of savings in the long-term debts of States, Federal Government, railroads, utilities, industries, farm mortgages, home mortgages, and mortgages on city property. In previous depressions, when these savings institutions were relatively insignificant, it was a simple matter to let the orthodox economic process work itself out through the bankruptcy courts, to liquidate debts through the bankruptcy courts; when only a few individuals made up the "bloated bondholder" class the liquidation of those debts did no great harm to your social structure, but when the millions of savers, the millions of policyholders, the millions of holders of passbooks in the mutual savings banks and the savings departments of commercial

banks are the owners of the bonds and mortgages, you cannot allow that deflationary process to liquidate those debts and disillusion those millions of savers. If you were to do that, you would change their buying and consuming habits so rapidly that you would bring about an economic collapse almost overnight.

We have established the precedent in this depression for the first time of the use of Federal credit in support of the debt structure, in support of these great savings institutions. That precedent has been established. It was absolutely necessary, in my opinion, for the Federal Government to go to the aid of the debt structure. I shudder to consider the consequences if we had attempted to get out of the depression of the thirties without such process.

The CHAIRMAN. Those who contend that every institution, the whole system, should have been permitted to go through the wringer, as the phrase has it, are overlooking, are they not, the fact that we are no longer living in an individual economy, but we live in a corporate economy, represented by the aggregation of these tremendous assets by large institutions.

Dr. DAVENPORT. That is right.

The CHAIRMAN. The whole industrial system is the product of corporate economy, and the disaster which would be localized in the ordinary bankruptcy of an individual would be Nation-wide in the bankruptcy of a huge institution.

Dr. DAVENPORT. We are all in the same boat now.

The CHAIRMAN. In other words, the same reasons which support the contention that the Federal Government had to step in with credit to prevent complete liquidation is support of the practice which has been followed heretofore of preventing, or at least reducing, the extent to which large organizations like the railroads were permitted to go through the wringer.

Mr. DAVENPORT. That concludes my direct testimony.

Mr. NEHEMKIS. Mr. Henry Dennison is the next witness.

The CHAIRMAN. Mr. Dennison, do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth?

Mr. DENNISON. I do.

## TESTIMONY OF HENRY DENNISON, PRESIDENT, DENNISON MANUFACTURING CO., FRAMINGHAM, MASS.

Mr. NEHEMKIS. State your name, please.

Mr. DENNISON. Henry S. Dennison.

Mr. NEHEMKIS. What is your occupation.

Mr. DENNISON. President of the Dennison Manufacturing Co.

Mr. NEHEMKIS. Are you a member of the Advisory Committee of the National Resources Committee?

Mr. DENNISON. I am.

Mr. NEHEMKIS. Mr. Dennison, I believe that you are co-author of a volume entitled "Toward Full Employment." Is that correct?

Mr. DENNISON. It is.

Mr. NEHEMKIS. Who are the other authors of that volume?

Mr. DENNISON. Mr. Flanders, Mr. Leeds, and Mr. Filene.

Mr. NEHEMKIS. I take it, Mr. Dennison, that like yourself the co-authors of that volume are all business men.

Mr. DENNISON. Yes; they are.

Mr. FRANK. They have all met pay rolls.

Mr. DENNISON. So far as I know.

Mr. NEHEMKIS. And I think one of the authors, Mr. Flanders, if memory serves me correctly, has already appeared before this committee.[1]

Mr. Dennison, are you prepared to testify?

Mr. DENNISON. I am.

Mr. NEHEMKIS. Will you proceed, calling for the charts that you need as you go along?

VOLUME OF PUBLIC CONSTRUCTION—FEDERAL, STATE, AND LOCAL 1920–1938

Mr. DENNISON. The testimony we have had so far had to do with the accumulation of savings primarily and their tucking away in various reservoirs. I shall take up a part of the use and investment of savings, a very considerable part in construction, both public and private, in the United States. We have taken construction with reference to private construction, to be what I think would ordinarily be called real property. We have eliminated machinery from those figures of private investments. We have taken with the Government figures for public construction what would ordinarily be known as public construction, practically all the dams and public buildings, school houses, and have included, of course, State and local with the Federal.

One chart will show the distinction among the three divisions having to do with the Federal and State and local divisions.

The idea is to show the relation over 20 years or so of this large sum, of the public and the private sectors and to analyze a little more closely the public sector, to show some interesting and important facts concerning it.

The leaving out of machinery was done largely because the comparison shown here is more clear if this construction and maintenance is taken out in the private sector for the buildings alone. The two occupations are more nearly alike. If the machinery had been included the relations would have been very much the same.

We start with the first chart, which I can identify as the same as the large one. The title is "Public and private construction and maintenance in the United States, 1920–38."

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the chart just identified by the witness.

The CHAIRMAN. The chart and table may be received.

(The chart referred to was marked "Exhibit No. 613" and appears on p. 3776. The statistical data on which this chart is based are included in the appendix on p. 4064.)

Mr. DENNISON. This lower section is the total public, which includes State and local; the upper section in yellow is the total private. There are several interesting points about that. It starts in 1920 and ends with 1930, which has had to be very slightly estimated and is probably correct within a very small percentage. The bulk, as will be seen, has been in all the late twenties up to 1929. A very heavy proportion, 75 percent or about, has been private construction.

[1] For testimony of Ralph E. Flanders, see Hearings, Part III, pp. 925–937.

EXHIBIT No. 613

# PUBLIC AND PRIVATE CONSTRUCTION AND MAINTENANCE IN THE UNITED STATES 1920 - 1938


PREPARED BY THE NATIONAL RESOURCES COMMITTEE

The Government share—and again I want perhaps to emphasize and perhaps not do it again, that government is local and State as well as Federal—was rising all during the twenties except for a slight drop in '23, and carried along until the peak of 1930. The private construction sector came to its maximum in 1926, as it includes housing; that is one explanation anyway, although there was a softening in general in private construction from then on. The largest private sector happens back not at the last end, not in the great year of '29 that we usually think of, but back in 1926. The Government sector was rising all that time, so that the peak year of the two together is '27, with very slight drops in the succeeding 2 years.

Then you see the familiar toboggan slide which is exaggerated in the case of construction, as you have no doubt heard many times, because that is the critical and crucial sector of our economic life. That can stop almost utterly; the current operations have to go on to a certain extent anyway to keep the population alive, but we can almost completely stop, if conditions are bad enough, the sector of construction for productive purposes. Here was this very heavy drop. The figures show it played very close to 11 billions, this private sector, in the late twenties, and then dropped with great suddenness to 8, 5, to 3 and to 2, virtually, ending in '33 with just over 2 billions of dollars.

Mr. FRANK. Private?

Mr. DENNISON. Private construction; that is the private alone. The total can be seen perhaps by the top lines as readily as it can be read. The private construction is hard to pick out there. That is why I gave you the figures.

The recovery period showed the building up slightly of both with 1936 showing the first considerable increase, and that also was an increase in both. Thirty-seven shows a slight drop in public construction, but more than enough increase in private to make up for it; '38 holds about even in total and shows a slight increase in public construction, with almost equal decrease in the private.

The CHAIRMAN. It would appear from this distance, Mr. Dennison, that government construction in 1930 was approximately the same in amount as in 1938.

Mr. DENNISON. Just a few dollars over; it is a little bit larger. The public in 1930 was 3,733,000,000; in '38 it was 3,711,000,000, almost exactly the same.

Mr. FRANK. So our public-works program has just about caught up with what it was in '30.

Mr. DENNISON. Just about.

The CHAIRMAN. I assume that there may be a different proportion between Federal and State and local in the two columns.

Mr. DENNISON. The next chart will show that there decidedly was a difference.

The CHAIRMAN. In other words, that the proportion of Federal construction in 1938 was vastly greater than in 1930.

Mr. DENNISON. Federal and Federal-aid construction is very much greater. We have drawn the distinction between the two.

One word perhaps should be said with reference to the chart. We have included maintenance. I will show later, just for safety and

clearer understanding. a chart which shows the public maintenance charge separately.[1] It is not significant to our purposes because it goes along so perfectly uniformly. It is almost an even percentage all the way through. It did not seem safe to leave out maintenance because maintenance comes so close to being construction; it is holding up and keeping the condition of the asset up to full value and we felt that to show the full story it should be in.

The next chart is, "Outlay for Construction and Maintenance of Government Plant, 1920–38, Federal, State, and Local."

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 614" and appears on p. 3779. The statistical data on which this chart is based are included in the appendix on p. 4064.)

Mr. DENNISON. That brings out immediately the point that you make. We have here in the lower bar strictly Federal, direct Federal, operations. We have in the middle bar, which is colored yellow, the Federal aid, which includes both the loans and the grants in aid, and we have in the upper bar, that beautiful purple, the strictly local, direct, unaided local operations.

The CHAIRMAN. Federal aid to States appears on this chart in the first bar which appears in the year 1920. I assume that is principally road construction.

Mr. DENNISON. I assume that is almost wholly road construction. I don't remember that in those early days there was anything but. There may have been small operations in the nature perhaps of irrigations or flood controls or something like that, but it was extremely minor in any case and showed up as the first growth of any kind in 1930, which about doubled 1929; 1931 then not quite doubled 1930, and from then on that sector of Federal aid has grown, as shown there, very greatly, and the figures give it in the accompanying tables quite clearly.

There, as clearly as one could show it, I think, is the picture of our total governmental construction and maintenance activities. Notice that in 1936 there was a considerable increase in the Federal activities, which dropped in 1937, of both sorts, direct Federal in 1937 which dropped most heavily, and in 1938, while the direct Federal dropped the aid increased, but the top year of Federal aid and direct added together was 1936. The local has increased fairly steadily but very slightly from the low year of 1933, the local direct figure.

I am showing for the record, and it need not take more than a moment, a chart, "Public Construction and Maintenance in the United States, 1920–1938."

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 615" and appears on p. 3780. The statistical data on which this chart is based are included in the appendix on p. 4060.)

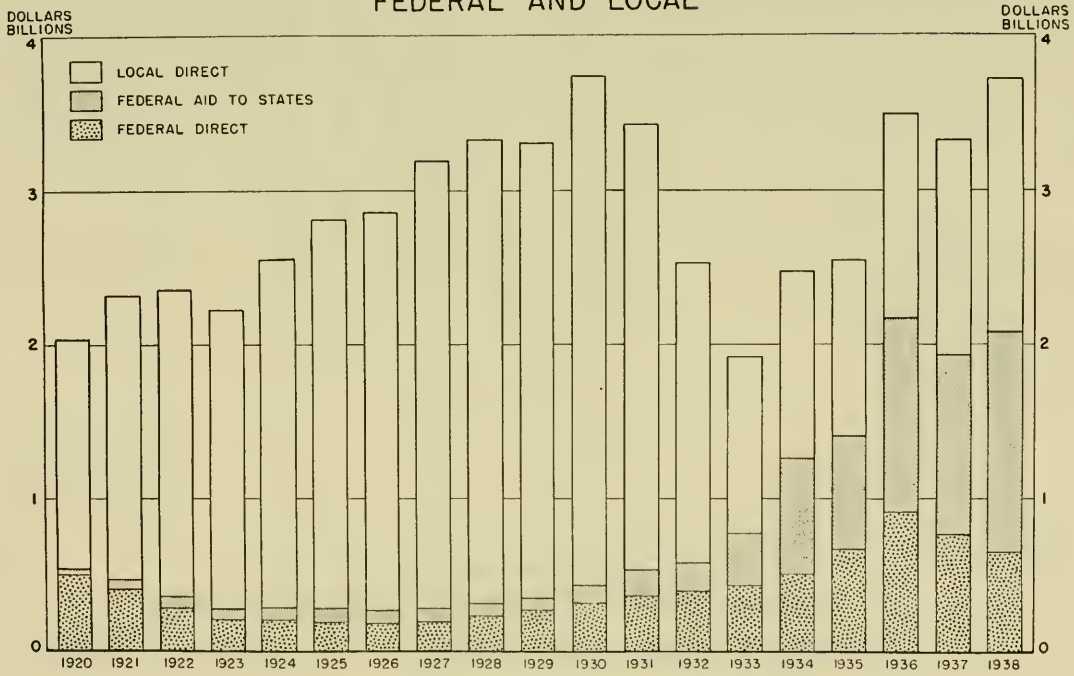
Mr. DENNISON. Now, that is simply shown to separate the maintenance from the construction, so that a thorough understanding, if anyone needs at any time to use the figures, can be given somewhere separately. In the full record I hope that many of the details of

[1] Subsequently entered as "Exhibit No. 615," see infra, p. 3780.

EXHIBIT No. 614

# OUTLAY FOR CONSTRUCTION AND MAINTENANCE OF GOVERNMENT PLANT 1920 - 1938

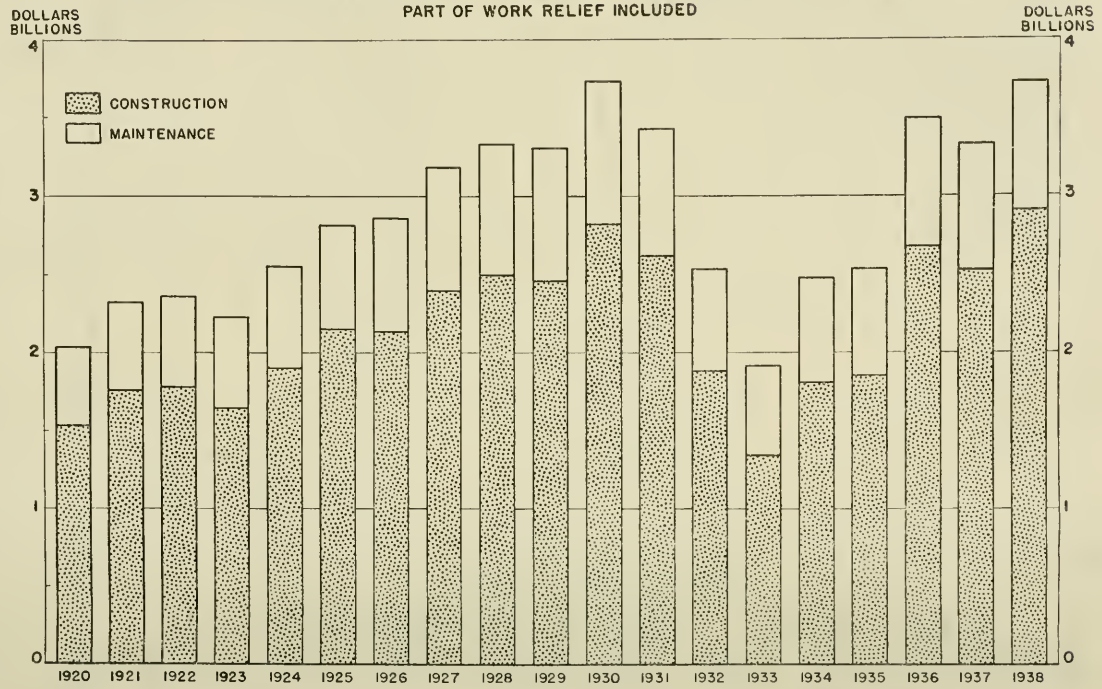
## FEDERAL AND LOCAL




PREPARED BY THE NATIONAL RESOURCES COMMITTEE

EXHIBIT No. 615

# PUBLIC CONSTRUCTION AND MAINTENANCE IN THE UNITED STATES 1920–1938



these figures will be given.[1] I suspect they will. Here, in making a relatively short appearance and not to weary you too much, I am using a very minimum of the charts. This I don't think has any particular significance. The totals will be just what you have seen before.[2]

The fourth and last chart that I want to show is entitled "What Was Built by the Government, 1920–1937."

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 616" and appears on 3782. The statistical data on which this chart is based are included in the appendix on p. 4065.)

Mr. DENNISON. This is again Federal and local and State governments, and the form of expenditure in six main classes. Here is the highway expenditure, which, as one sees, is by all odds the largest. It goes to a figure of $1,480,000,000.

Mr. FRANK. In 1930?

Mr. DENNISON. In 1930. It has been a very considerable volume of governmental activity over the whole United States from 1920. Its meaning, of course, is perfectly clear. We had to have roads if we were going to have automobiles, and we had to have automobiles if we were going to have roads, and there we were, but in all cases over the whole it seems to me it must be taken as an extremely important activity which has then led to the richness and variety of life in any case of the whole citizenship if it hasn't done even more.

This is water supply, sewage disposal, and that sort of thing, or water activities, the total of the river work, harbors, and all that sort of thing.

Here are the public educational buildings, schools. You realize this is also the local expense.

Here is the naval and military expenditures which come to considerable figures in the last 4 years. They stayed about even, 40 to 50 or 60 millions in the middle of the session.

### PLANNING OF PUBLIC WORKS—NATIONAL RESOURCES COMMITTEE

Mr. DENNISON. The conservation and development began to get into considerable importance by 1930, and then the miscellaneous construction of public buildings and the whole range of activities of a miscellaneous nature.

That I am putting in evidence because it seemed to us when working together on the book that it must be appreciated that these activities are of considerable importance, of considerable social and personal importance; that is, the money that our governments spend in part at any rate goes to essential facilities that we couldn't do without; we couldn't do without our schools in any case, it would be a horror to suppose what would happen to us if we did without our roads, or went back even to the condition that they were in years ago, and all the rest. We must realize that they are extremely important activities.

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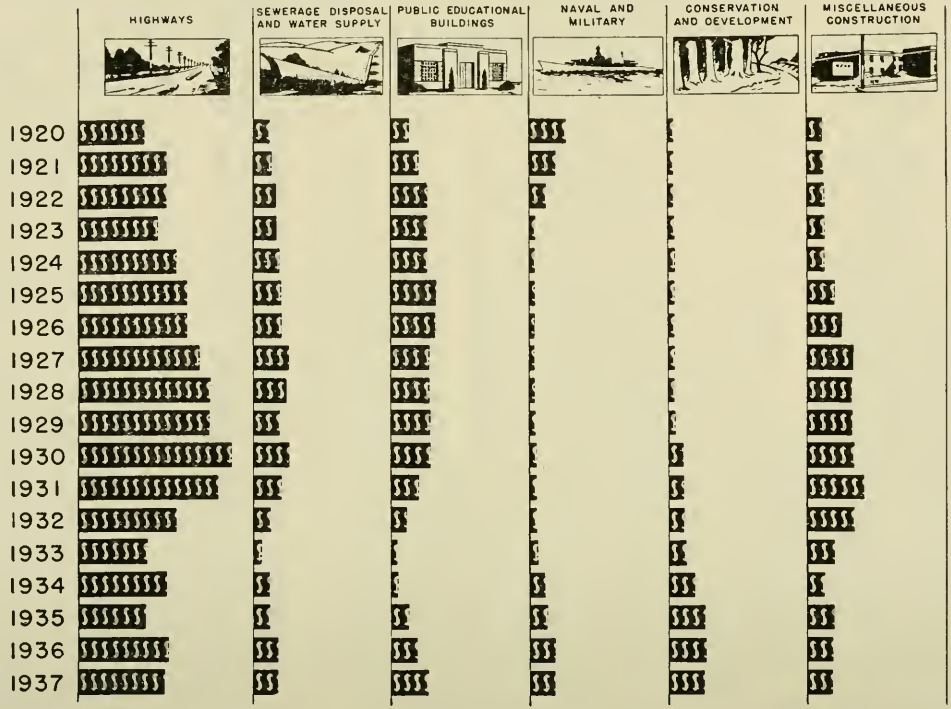
[1] See also data and chart on "Public construction, 1920–38, Federal and non-Federal maintenance not included; part of work relief included," which appear in the appendix on pp. 4140 and 4141.

[2] See table and chart on "Public construction and maintenance, 1920–38, Federal and non-Federal; part of work relief construction included," appendix, pp. 4140 and 4142. See also table "Work relief construction and maintenance, 1933–38," appendix, p. 4143.

EXHIBIT No. 616

# WHAT WAS BUILT BY THE GOVERNMENT 1920-1937




EACH $ REPRESENTS $100,000,000

PREPARED BY THE NATIONAL RESOURCES COMMITTEE

I am suggesting that these charts show that the governmental construction outlet is a considerable matter, it amounts to figures that are important, and that it devotes itself to purposes that are valid, that are in fact for the most part essential to our life together in this country, and, therefore, I want to make the point, as I come here direct from the meeting of the Resources Committee, that the quality of each of the projects is of first importance; and the effectiveness of each one of the projects in the thousands of projects and tens of thousands of projects that are represented here, and we must be willing to spend a great deal of effort to be sure that they are good. I don't think the criticism of Government expenditures as such lies usually so heavily against simply expenditure as it does against a project which seems useless, ineffective, or ill chosen, or ill-timed. It seems to me with the quantity that is here, indicated by the past, with no indications on our charts that it is lessening materially, although it may to a slight extent, with that quantity it is of the utmost importance that we see that the quality is as high as we can possibly make it. That I believe can be accomplished primarily by foresight, by looking ahead, by arranging our projects years ahead of the time that we expect to undertake them, and so handling them that they can be thoroughly investigated and can be compared with each other, and particularly correlated. That is the point I want to emphasize very strongly, the one with another. In other words, I believe we can do it by planning.

It is an old principle—planning. We talk about Alexander Hamilton and the Army and everybody else years ago; but to come more nearly to date, there has been excellent planning for years by governmental bureaus; with long foresight they have been planned years ahead. The difficulty has been not with their individual planning, but there has been altogether insufficient means of bringing their various plans together, comparing them, particularly sometimes of uniting them so that two different bureaus dealing with the same sort of thing could bring their plans together in advance and work them out. You will realize that there are something like 80 in the Federal Government alone, something like 80 separate agencies that at some time or another give the funds with which to take part in construction projects, and the correlation and integration of the work of any such large number is a task of very considerable difficulty and of very considerable importance.

That was first recognized in a given form by the Congress in 1931 when they set up the Federal Employment Stabilization, and that was given, among others—

> the duties to cooperate with the construction agencies in formulating methods of advanced planning, to collect information concerning advanced construction plans and estimates by States, municipalities, and other public and private agencies, which may indicate the probable volume of construction within the United States, or which may aid the construction agencies in formulating their advanced plans.

It is quite significant that at that time the beginnings of a cooperation with the States and local authorities was instituted. As is seen here, most of our public works would ordinarily be and have commonly been undertaken as local projects, and the Federal share has always gone out, most of it except the work that has been done here, a great deal by the Department of Agriculture, the Department of the Inte-

rior, the Army's engineers, and all the rest, into these various communities, and there has been, I think, altogether too little institutionalized, organized cooperation so that plans of the one may be known in advance and correlated and integrated with plans of the other.

When the P. W. A. was set up this became a very important matter, as most of the work had to be done outside of Washington in the field, so to speak, in the country at large, and then Mr. Delano and Dr. Merriam and Dr. Mitchell were asked to act as a board to criticize and correlate and bring together all the projects. They worked in cooperation with the Federal Employment Stabilization Board until the appropriation of the latter expired. The full duties were taken over by the National Resources Board, which was an enlargement of the smaller committee, in 1934. Since then one of their principal jobs has been to get the projects far enough in advance so that they could be thoroughly criticized and thoroughly thought over not from one point of view, not an irrigation project from the point of view of irrigation alone, but of game conservation, of flood control, sometimes of navigation, of power; so that all of the possible interests, all the possible services that any project could perform in any district could be thought over and the project so set up that it would serve the maximum purpose in all those directions.

The way we have gone about the planning, I simply want to indicate very shortly with the idea of showing that it is a practical thing. As far as we have gone—of course, we have far to go to do a good job—it appears to be a wholly practicable thing.

Our method is first to rely on the departments here, or the Federal Government, listing their projects just as they did with the Stabilization Board, and we bring those to others to look over, to see if they have any that correlate with them that ought to be taken into account when they are thought over.

We go to the State planning boards which are set up very successfully over the country. There are now 46 active State planning boards over the country, and through them we can work with county, city, and municipal planning boards. They have their projects, which are either local, or jointly Federal and local, or are projects for the Federal Government alone; they have a long list ahead, so that when any one of them is taken up, it can be looked at in the setting of all of the likely projects that will show up in the next half dozen years. It is significant that the first listing of the Stabilization Board was that they called upon the departments for projects for the next 6 years.

We have done a great deal of work through special committees and regional committees, interstate committees, in such things as the Rio Grande project, the Red River,, and others, where for some special proposition we bring them together.

We have two very active regional committees, one in the Northeast and one in the Northwest, who are studying in each case for a half dozen States, projects that involve all of the States in cooperation with each of the State planing boards. We formed these committees out of the people involved in the various departments to criticize and work over the projects as they have come to us.

The best example and the furthest advanced in work is the Water Committee. There we have representatives of the bureaus that are

concerned with work on the rivers; in the Army in the irrigation division you have conservation, and all the rest. We have in each case some men outside the Government. In the case of the Water Committee, Abel Wolman of Maryland, who is outside the Federal Government, acts as chairman, and they have done a sample of work which I would like to show because I think it is the best example we can give of the promise which this type of advanced planning holds. I think that an examination of these two drainage basin reports which are public documents—I have plenty here if anyone wants them on the spot—of December, 1936, and a revision in 1937, shows just about what is meant by planning and just about the practical possibilities of making it a success.

Mr. FRANK. Could you identify these two reports so they can be incorporated by reference?

Mr. DENNISON. The first report is "Drainage Basin Problems and Programs, December 1936, National Resources Committee."[1]

The second report is, "Drainage Basin Problems and Programs, 1937 Revision, National Resources Committee."[1]

One or two points about those reports I want to emphasize. In the first place, it is a multiple-use problem. The special reason for undertaking it is that there is hardly a project there that involves simply one bureau. They involve the interests that two or three bureaus are set up to guard, but, more than that, in preparing these we have had local participation of 45 committees covering the 115 basins that are covered in that first report; 550 people around the country have taken active, interested part in working out these reports, getting as far as they can. They have been very thorough with respect to one project and just barely mentioned another that is in the future, that is in the offing, and then there would be one half worked out. But there we have a connection between the center, as illustrated by some of the bureaus here that have part of the work to do and part of the interests to guard, and the field, working together in these committees. We think that decentralization is of the utmost importance for all the construction activities, or almost all, that the Government might undertake, and so I am emphasizing and reemphasizing the importance of that in respect of thorough understanding—the chance to criticize thoroughly before Congress or the Executive has to select and undertake. We are trying to lay before those who have the final selection to make the fullest information possible and the biggest background possible. We believe that this sort of planning can make—cannot guarantee but greatly assure—the effectiveness and the real quality of the various projects that have made up Government expenditures in the past and are almost certain to make up a very significant part of our total investment in this country in the future.

The CHAIRMAN. How do you correlate this with the problem of the investment of so called private funds which was delineated before us this afternoon by Dr. Davenport?

Mr. DENNISON. This Government part of this is not, I suppose, to be talked of in precisely the same language as the investment of private savings. This is sometimes called the investment of Govern-

[1] On file with the committee.

ment savings.[1] I think the terms are misleading and probably we have got to reanalyze and invent some others. This, after all, is a Government expenditure. It is different from others such as paying teachers' salaries, without which, of course, the schoolhouses are no good. The difference is that you have something you can look at and touch afterward. Presumably a teacher gives you a quality and a value in the future that may be of much more importance than the schoolhouse itself, but that is in the realm of the imagination.

ROLE OF PUBLIC WORKS IN SOLUTION OF INVESTMENT PROBLEM

The CHAIRMAN. But this committee has been requested by the President of the United States to develop, if possible, information on how investment funds—by which I assume to be meant private investment funds—may be actually put to work.[2] Your testimony does not deal with that; you are speaking only of the contribution which Government expenditure may make and you are not offering any solution to the problem of unemployment, are you?

Mr. DENNISON. I am not.

The CHAIRMAN. I observe from your chart entitled "Public and Private Construction and Maintenance in the United States"[3] that the entire contribution of public construction for the years 1933 to 1938, inclusive, approximates about $18,000,000,000, and that the private contribution to construction and maintenance during the 2 years, 1927 and 1928, also amounted to about $18,000,000,000. Is that correct?

Mr. DENNISON. There are about 20 for the private and about 19 for the Government.

The CHAIRMAN. In other words, it is your judgment that private construction called for the expenditure in 2 years of a billion dollars more than the entire Government expenditure, Federal and State, for public construction during the years 1933 to 1938 inclusive?

Mr. DENNISON. Two years in the late twenties.

The CHAIRMAN. Yes, 1927 and 1928. Did I not say that? That is what I meant if I didn't say it. In other words, Government spending in itself is not the contribution toward the restoration of prosperity that private spending is.

Mr. DENNISON. Under the present situation I don't see how it could amount to more than a fraction of the contribution.

The CHAIRMAN. The question for us, then, to answer for the President and for the country, I take it, is how we can stimulate these private expenditures without which there can be no real prosperity. Have you any suggestion to make to us on that score?

Mr. DENNISON. I think that is the crux of the matter, but I haven't prepared on that particular angle. If I had, I am not at all sure that I would be quite bold enough to make the suggestion.

The CHAIRMAN. That, of course, as you say, is the crux of the matter and desirable public expenditure or public construction in itself is no answer to the problem unless by means of it we succeed in putting people to work.

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[1] In this connection see table and chart on "Funds available and the disposal of such funds by the Federal Government, total, 1931–38," appendix, pp. 4144 and 4145.
[2] See "Exhibit No. 546," appendix, p. 4009.
[3] See "Exhibit No. 613," appendix, p. 4063.

Mr. DENNISON. Yes. I am emphasizing simply that it is extremely important in the situation. I think it is important psychologically. I think we have felt for years we should do our best to make that valid and good, what there is of it, but for a long time to come, longer than I expect to be wandering around here, I think the principal thing is to look for private expenditure.

The CHAIRMAN. So that you are not offering this plan of public expenditure as a solution of our problem.

Mr. DENNISON. Absolutely not.

The CHAIRMAN. There was another thing, Mr. Dennison, which appealed to me very strongly from your chart, "What Was Built by the Government."[1] It is just by way of commentary, not that it has any great significance, but it would appear from this chart that Government expenditure for educational construction was far greater during the period 1920 to 1937, inclusive, than all expenditures for military and naval construction. Your chart shows that.

Mr. DENNISON. Very much greater, yes.

The CHAIRMAN. And Government expenditure for highways was apparently greater than the total expenditure for naval and military purposes, public educational purposes, and sewage disposal and water supply purposes.

Mr. DENNISON. Roughly speaking the highways have been pretty nearly half and that is to say equal to all the others put together, a good many years slightly more than half. It runs not far from half all through the twenties. Highways has been equal to all the rest of them added together.

The CHAIRMAN. I think it is probably not very well understood that military and naval construction is such a small proportion of the total Government expenditure during this period.

Mr. DENNISON. Even as it has grown—it is 200 millions—but with the highways at 800 million, they have gone down a great deal.[2]

Mr. NEHEMKIS. Are there any other questions to be asked?

Mr. O'CONNELL. Referring to the chairman's earlier question, it seemed to me that your entire discussion of this type of activity assumes the social desirability of public expenditures of the character that you are referring to. Isn't that true?

Mr. DENNISON. Yes; it certainly does.

Mr. O'CONNELL. Would it be too much to say that it also assumes some beneficial effect of this type of activity insofar as creating employment, and so forth?

Mr. DENNISON. Yes; I think that is wholly true. I think if you imagine cutting all of this off suddenly you would find yourself thinking of considerable deflation. I would say that to depend upon Government construction to fill up the whole gap within the measurable number of years would be, well, decidedly premature and unwise.

The CHAIRMAN. Not only premature and unwise, but impossible.

Mr. DENNISON. It would be quite impossible as well. We can't let up on all of the efforts in the world, it seems to me, to spur the present construction, because I don't think we could win out on the public alone under the best of circumstances.

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[1] "Exhibit No. 616," supra, p. 3782.

[2] See also table on "Expenditures for construction and maintenance of naval vessels in the United States, 1920–38," which appears in appendix, p. 4146.

Mr. Frank. On the other hand, having read your book—perhaps that is an unfair advantage—I gather——

The Chairman (interposing). An unfair advantage of Mr. Dennison?

Mr. Dennison. He is quoting the Bible—"Would that mine enemy * * *"

Mr. Frank. I am going to ask whether you don't think that public expenditures indicated in your first chart are very important as a means of furnishing the basis for the private expenditures in the field of construction and otherwise, and for helping to meet the problem of unemployment.

Mr. Dennison. I have no doubt whatever that the public expenditures help to meet the problem. I don't see how it could be figured any other way, but that if the public expenditures are there there is that much less unemployment than there would be. Also, we had very much in mind in the book, a more—I hate to use the word—normal situation. That is, what I am saying is that we can't now, or couldn't certainly after '32, have counted on public expenditure to fill up the whole gap. We probably can't count on it to fill up the gap that is left, considering the increase in the population and all the rest, today. But we should consider, as we said in the book, a fluctuation in public expenditure, public construction, a fluctuation to help cushion the fall and perhaps prevent it. I don't know that it will prevent; if it is tackled early enough it may, and of course that involves the retraction and diminution of public construction as soon as private business activity goes on.

The Chairman. May I interrupt to say that I didn't mean to imply by my questions that the Government expenditures, both State and Federal, for public construction, were not a very important contribution to the solution of the trouble. My point, however, is, as demonstrated by this chart, that the Government expenditures are, comparatively speaking, only a drop in the bucket as compared to the expenditure which is necessary to restore anything like a prosperous economy. Would you feel that that is a correct way of stating it?

Mr. Dennison. I think we can put it in a word by saying that we can look to this field for a certain tonic and amelioration but not for a cure. If you talk public expenditure as a cure, then I think you are talking certainly beyond your time, beyond the moment, and beyond the possibilities of the moment, but what can be done in that field without any damage which overwhelms its usefulness is, it seems to me, very much to the good, and if it is the sort of thing we want anyway, there can be very little argument against it.

Mr. Nehemkis. To put it somewhat differently, we might say it is a way of holding the line until private investment moves up to the front ranks.

Mr. Dennison. I think that is another way to put it, that one might keep in good condition with a tonic until natural forces begin to build up his health.

The Chairman. Then, of course, the other question arises whether or not the Government can, for a long period of time, follow the policy of engaging upon construction of this kind with borrowed funds and not out of income. Construction out of income is one thing; construction with borrowed funds over a long period of years is quite another.

Mr. DENNISON. That I would not be bold enough to have views upon.

The CHAIRMAN. You don't offer any opinion on that?

Mr. DENNISON. You have men so much better qualified than I that my view would be simply that of an amateur.

The CHAIRMAN. So that this testimony leaves this whole question of deficit spending unanswered.

Mr. DENNISON. It does. It takes a very small and very practical angle of the whole, that here is this Government activity which enters into your problem, as you have already said, to some extent, and I am making the emphasis that it enters in most effectively, perhaps only effectively, if the quality of the projects is guarded with the utmost care.[1]

The CHAIRMAN. Are there any other questions?

Mr. NEHEMKIS. No, Mr. Chairman. I would call your attention that it is now 5:30, and we promised to have the witness through with his testimony at that time.

The CHAIRMAN. I think you have done very well with a very interesting witness.

(The witness, Mr. Dennison, was excused.)

The CHAIRMAN. What time do you want to begin in the morning?

Mr. NEHEMKIS. At your pleasure. The witness will be Hon. William R. White, Superintendent of Banks of the State of New York. The witness for the afternoon will be Hon. A. A. Berle, Jr., Assistant Secretary of State.

The CHAIRMAN. The committee will stand in recess, if it is agreeable, until 10:30 in the morning.

(Whereupon, at 5:30 p. m., a recess was taken until Tuesday, May 23, 1939, at 10:30 a. m.)

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[1] See tables and charts on "Increase in Federal debt and in value of selected Federal properties, 1931–1938," and "Increase in public debt and in Government assets, 1931–1938," which appears in appendix on pp. 4146, 4147, 4148, and 4149.

# NVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TUESDAY, MAY 23, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
*Washington, D. C.*

The committee met at 10:50 a. m., pursuant to adjournment on Monday, May 22, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senators O'Mahoney (chairman), King, and Borah; Representative Reece; Messrs. Henderson, Davis, O'Connell, Frank, nd Brackett.

Present also: Willis J. Ballinger, Federal Trade Commission; Amos E. Taylor, Department of Commerce; Commissioner Edward C. Eicher, Securities and Exchange Commission; Peter R. Nehemkis, r., special counsel, Investment Banking Section, Securities and Exchange Commission; and Joseph R. Kelley, associate counsel, nvestment Banking Section, Securities and Exchange Commission.

The CHAIRMAN. The committee will please come to order.

Are you ready to proceed, Mr. Nehemkis?

Mr. NEHEMKIS. I am, sir.

The CHAIRMAN. Will you please call the first witness?

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, yesterday we examined the formation and flow of the national income, nd the great importance of savings in that flow. Mr. Ralph Manuel, president of the Marquette National Bank, Minneapolis, described the mechanism of the dollar circuit.[1] Dr. Davenport described the eservoirs into which individual savings flowed, and the types of nvestments made by our great savings institutions.[2]

He indicated that savings were no longer individual transactions, ut were woven into the whole economic fabric through the medium of ur giant financial institutions. His testimony made it clear that the American people were not becoming less thrifty, but rather the contrary. He developed some of the difficulties now appearing in finding investment outlets for this growing stream of savings, and cited igures of idle money and cash balances and excess bank reserves.

Mr. Henry Dennison, president of the Dennison Manufacturing Co., Framingham, Mass., analyzed construction outlays, both public nd private, as investment outlets.[3] He showed how public construction had averaged from 20 to 25 percent of all construction during he 1920's, but now running from 40 to 50 percent of all, due to the great shrinkage of private construction, especially housing.

[1] Supra, pp. 3706–3725.
[2] Supra, pp. 3726–3774.
[3] Supra, pp. 3774–3792.

From his testimony it would appear that public construction can hold the line against further decline, but can hardly be expected to fill the whole gap. Today, Mr. Chairman, we invite the committee's attention to ways and means for increasing investment opportunities, especially in the area of private enterprise.

The CHAIRMAN. By the way, Mr. Nehemkis, I think I might properly comment on at least the final conclusion of your statement on the effect of Mr. Dennison's testimony. He was very clear in saying that he was offering no solution of the economic problem by Government spending, and whether one may say that his testimony indicated that the line could be held by that alone I think might be open to some little debate. I make this comment merely because I don't want it to appear that the committee is by any means authorizing any definite conclusion with respect to what the effect of the testimony is.

As a matter of fact, as I remember some of the questions which I addressed to Mr. Dennison, he expressly disclaimed any attempt to answer the question of spending. He was merely offering or commenting upon what seemed to be a desirable program; but whether such a program should be carried on by borrowed funds he didn't touch at all. And that, of course, is one of the problems that this committee must eventually study.

Senator KING. May I make this comment: That I would not want it to be understood that the presentation just made by this distinguished attorney was the view of the committee. Certainly some of the statements made by him as conclusions would be subject to serious controversy, and I doubt the propriety or the wisdom, at any rate, of counsel representing or stating their conclusion as to what the testimony means.

Mr. NEHEMKIS. Let us merely characterize it as a statement of counsel and his impression of what the evidence purported to indicate.

Senator KING. That is all right; let it be so characterized.

Mr. NEHEMKIS. Mr. Chairman, if the committee please, this morning I have the pleasure of presenting to you as our first witness the Honorable William R. White, Superintendent of Banks of the State of New York.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. WHITE. I do, sir.

## TESTIMONY OF WILLIAM R. WHITE, SUPERINTENDENT OF BANKS OF THE STATE OF NEW YORK, NEW YORK, N. Y.

Mr. NEHEMKIS. Will you state your name and address, please?

Mr. WHITE. William R. White, 419 East Fifty-seventh Street, New York City.

Mr. NEHEMKIS. Mr. White, what is your official connection with the government of the State of New York?

Mr. WHITE. As superintendent of banks I am the head of the State banking department.

Mr. NEHEMKIS. Mr. White, you have been for a number of years connected with the department of banks in one capacity or another, have you not, sir?

Mr. WHITE. That is correct. I came into the department in 1930 as assistant counsel and later became deputy superintendent and counsel, and for the last 3 years have been superintendent of banks.

Senator KING. As counsel, you mean legal adviser?

Mr. WHITE. That is correct.

Mr. NEHEMKIS. Mr. White, are you prepared to discuss this morning with the committee the possibilities of expanding and opening up the legal list?

Mr. WHITE. Yes, sir.

Mr. NEHEMKIS. Mr. White, can you give us an estimate of the amount of trust funds and savings-banks deposits in the State of New York?

Mr. WHITE. The deposits of New York mutual savings banks as of the end of last year were approximately $5,400,000,000. Accurate figures concerning the amount of personal trust funds in New York are not available. We estimate, however, that there are approximately $7,000,000,000 held by corporate trustees in New York; that is, by New York trust companies and national banks which are authorized to exercise fiduciary powers. We also estimate that approximately one-quarter of this $7,000,000,000 of trust funds is restricted to investment in securities which are prescribed by law for legal investment. All of the funds held by savings banks are likewise restricted, so that we have in the State, including the deposits of savings banks and trust funds which are restricted to investments in which savings banks may invest, about $7,000,000,000.

Senator KING. Part of the first $5,400,000,000 you mentioned and part of the $7,000,000,000?

Mr. WHITE. Yes; it would include about one-quarter of the seven billion, and the five billion four hundred millions.

Mr. NEHEMKIS. Will you explain briefly, Mr. White, the meaning of the term "legal list"?

### ROLE OF LEGAL LIST IN DIRECTING FLOW OF INVESTMENT FUNDS

Mr. WHITE. The legal list is a document published annually by the New York State Banking Department. It lists the securities which, in the opinion of the superintendent of banks, comply with the standards prescribed in section 235 of the banking law and which are therefore, in his opinion, legal for investment for savings banks and for trustees. The fact that securities are excluded from the list is not to be taken as definitely meaning that those securities are not legal. However, the fact that securities are included in the list affords some protection to savings banks and trustees investing in those securities and, in fact, investment in other securities is barred by savings banks and by trustees unless the instrument creating the trust authorizes investment beyond the list.

Mr. NEHEMKIS. Not all States restrict investments by savings banks and trustees in the same manner as New York. Is that correct?

Mr. WHITE. That is correct. In some jurisdictions we have what is known as the Massachusetts rule, which means that the State does not attempt to prescribe with exactitude the securities in which trustees may invest. On the contrary, a broad discretion is allowed the trustee in selecting investments so long as he acts with prudence and in good faith.

The majority of States, however—the large majority of States—have legal lists similar to the one which we have in New York. Some States, I believe, incorporate by reference the New York legal list without setting up a list of their own.

Mr. NEHEMKIS. Before the obligations, say, of a railroad can be admitted to the legal list in New York, what qualities would the road have to have demonstrated?

Mr. WHITE. The road must not have experienced a default in 6 years prior to the time an investment is made, it must operate at least 500 miles of track or have annual gross operating revenues of at least $10,000,000 during 5 of the 6 preceding years. It must have earned fixed charges at least one and one-half times during 5 of the preceding 6 years and during the last year prior to the investment, and have either paid cash dividends during 5 of the preceding 6 years equal to one-fourth of the amount of fixed charges or, as an alternate, must have earned fixed charges at least one and one-half times during 9 of the preceding 10 years. By a temporary moratorium which has been extended from year to year for the past 8 years, I believe it is, the rule that a road must have earned its fixed charges one and one-half times has been displaced by a provision to the effect that the road must have earned its fixed charges once.

Mr. NEHEMKIS. In other words, Mr. White, if I understand you correctly, before the obligation of an American railroad can find its place on the legal list of the State over which you have jurisdiction it must have fulfilled the four requirements which you just set forth.

Mr. WHITE. That is correct.

Mr. NEHEMKIS. I presume that in the municipal and utility fields the issuing corporations must likewise comply with certain specific requirements. Is that correct?

Mr. WHITE. That is correct. The law is very definite with respect to the requirements which must be met by the issuing corporation or municipality.

Mr. NEHEMKIS. Can you tell the committee, Mr. White, the amount of the different classes of securities which make up the list and the major changes in recent years in its composition?

Mr. WHITE. The legal list does not attempt to enumerate Government bonds, the reason being that all United States Government bonds are legal for investment without any condition being prescribed whatever. Hence, because the superintendent is not required to exercise any discretion relative to these obligations, they are not enumerated in the list.

In 1931, and I take that year because it was about the last year when the list reflected the situation as it existed prior to the effects of the depression, the amounts of the different classes of securities included in the legal list were approximately as follows: Obligations of States, two billion three hundred one millions; municipalities, eight billion seven hundred seventy three millions; railroads, seven billion six hundred two millions; utilities, two billion one hundred sixty-six millions.

(Senator King assumed the chair.)

Mr. NEHEMKIS. I suppose in connection with the 8-billion figure that you gave of the municipals, that is a direct obligation debt; so it would not be on the legal list because of specific tax provisions.

Mr. WHITE. That is correct; yes. With the exception of the railroad classifications, these figures have not changed materially since 1931. In the case of railroads, the 1931 figure of seven billion six hundred millions has dropped to two billion five hundred millions, and even this amount is not properly comparable to the 1931 figure because it includes one billion six hundred twenty-five millions of securities which are eligible for investment only by virtue of the temporary moratorium to which I referred a few moments ago. Actually there are less than a billion dollars of railroad securities which, on the basis of the last year's earnings complied with the standards prescribed by the banking law of 1931, that is the regular standard provision of the banking law. This situation is due, of course, to the fact that decreased earnings in the rail industry made it impossible for many roads to comply with the statutory standards which were applicable in 1931.

Mr. NEHEMKIS. Suppose, Mr. White, that a railroad, the securities of which are removed from the legal list, is reorganized on a sound basis so that its earning power is restored and its future prospects are bright, would savings banks and fiduciaries then be permitted to invest in its obligations?

Mr. WHITE. If the road defaulted, of course, an investment could not be made in its obligations until after 6 years had elapsed and even if it had not its obligations would not be legal investments for savings banks or for trustee until the road made a record of 6 years, during which in the case of its mortgage bonds it had earned fixed charges at least one and one-half times in 5 of the 6 preceding years, and in the case of its debentures it had earned its fixed charges at least twice during 5 of the 6 preceding years and in the last year.

Acting Chairman KING. Have any railroads that have been reorganized met the 6-year requirement to which you have referred and thereby become eligible?

Mr. WHITE. I am sorry I can't answer that. I assume that probably that has been the case in years past, but I wouldn't wish to try to answer the question.

Acting Chairman KING. Not within your recollection?

Mr. WHITE. Not within my recollection; no.

Acting Chairman KING. On your list of eligibles you have not placed then, reorganized railroads that have met those requirements to which you have just referred?

Mr. WHITE. No; we have not so enumerated them.

Mr. NEHEMKIS. Mr. White, you have mentioned railroads and utilities as the two fields of private business in which the funds of savings deposits and trust funds can be invested. Do you believe that the list includes all of the investments of these two fields which might properly be considered as investments for savings and trust funds?

Mr. WHITE. I believe not in the utility field. For example, I believe there are undoubtedly a substantial number of corporations which failed to meet the technical requirements of the banking law, but whose securities might properly be considered as investments for savings banks or for trustees. We have found, however, that it is very difficult, if not impossible, to prescribe fixed standards in the law which operate to include all the good securities and at the same

time exclude all those that are not proper for investments, and the law fails to take into consideration a great many intangible factors which are incapable of standardization.

Mr. NEHEMKIS. In other words, I take it that the exact standards fixed by the law are necessarily inflexible.

(Senator O'Mahoney resumed the chair.)

Mr. WHITE. That is right.

Senator KING. May I ask a question there? Have you placed upon your eligible list, with or without a question mark, debenture bonds based upon real estate, hotels, large apartment houses, real estate, urban properties?

Mr. WHITE. No, no; they would not be legal investments.

Senator KING. No matter how meritorious the securities might be?

Mr. WHITE. That is correct. There are no standards prescribed in the law with respect to that type of security.

Senator KING. I suppose the board which prescribes the requirements for eligibility there have reached the conclusion that real estate is so uncertain in value that debentures and mortgages and so on are not to be placed upon the eligible list.

Mr. WHITE. All of the standards to which I have referred up to this point are standards prescribed in the law, that is by the legislature, and these provisions to which I have referred make no reference to debentures which I assume you have in mind, corporations engaged in the real estate business.

Senator KING. Yes.

Mr. WHITE. Of course, first mortgages are eligible for investment for both savings banks and trustees.

Senator KING. I didn't so understand your statement.

Mr. NEHEMKIS. Is it your opinion, Mr. White, that there are other industries in addition to railroads and utilities whose securities might measure up to proper investment standards for savings and trust funds?

Mr. WHITE. In my opinion, yes; certainly consideration should be given to industries, such as foods, oils, tobaccos, and steel. At the present time savings banks and trustees which are restricted to the New York legal list are barred from making investments in corporations operating in these fields, no matter how sound the individual corporation may be.

Mr. NEHEMKIS. As I understood your answer, it was your view that consideration could be given to such industries as foods, oils, tobacco, and what was the other one?

Mr. WHITE. And steel.

Mr. NEHEMKIS. Steel.

Senator KING. Do you know whether efforts have been made to secure legislation broadening the list of eligibles?

Mr. WHITE. Yes; a great deal of study has been given to that in the last few years in New York and a year ago an act was passed which we hope will make it possible to broaden the legal list.

Senator KING. Would that list include, if it were passed, steel, tobacco, foods?

Mr. WHITE. The amendment to the law to which I refer is one that would permit the State banking board to make additions to the list.

Mr. NEHEMKIS. How would it be possible, Mr. White, to revise the legal list to permit the investments of savings and trust funds in industrial fields such as those you mentioned?

Mr. WHITE. There are three general avenues of approach. One means of accomplishing the purpose would be to formulate statutory tests and make them applicable to corporations operating in the industrial fields. Those tests would be similar in principle to those that now apply to railroads and to utilities. However, as I have already pointed out, it is extremely difficult to prescribe fixed standards which operate effectively to admit all of the good securities and at the same time bar those that are inferior in one way or another. The second possibility lies in the consideration of the Massachusetts rule to which I have also referred; the rule which places broad discretion in the trustee to select securities so long as he acts with prudence and in good faith.

It is probable, however, that most States which have for many years followed the New York rule would be reluctant or unwilling to accept the Massachusetts rule.

Mr. NEHEMKIS. May I just interrupt at this point, Mr. White? Would it be a fair characterization on my part to say that the majority of the American jurisdictions follow the New York standards, and the rules laid down by your department?

Mr. WHITE. It would be proper to say that a majority of the States have legal lists similar to the one in New York. I think that it is also safe to say that since New York originated that method of testing securities that it has been followed by most of the other States.

Senator KING. By the adoption of your statute or by reenacting or by adopting it in general terms or reenacting it in the same words.

Mr. WHITE. It has been done both ways; usually the State has taken it over and enacted it into their own statutes, or similar statute.

Senator KING. Has there been much criticism of Massachusetts, where responsibility rests on the trustee and who, I assume, might be liable in damages if he acted capriciously or without due consideration of the responsibility devolving upon him?

Mr. WHITE. I believe there has been a minimum of criticism of the manner in which the Massachusetts rule has operated. I am inclined to feel personally that it has many advantages over the New York method.

Senator KING. I suppose in view of the large discretion vested in the trustee, the court or the individuals, or those creating the trusts have been a little more meticulous and careful in the selection of the trustees?

Mr. WHITE. That may possibly be true, and of course where the trustee is given broad discretion that way, the courts have usually held him to very strict accountability.

Mr. O'CONNELL. Referring to the Massachusetts rule, do you happen to know whether in States where that rule operates it results in a substantially different character of investment by the trustees concerned?

Mr. WHITE. Well, in years past I think that it has resulted in quite a difference in investment practices.

Mr. O'CONNELL. You mean more equity securities and that sort of thing?

Mr. WHITE. For example, in Massachusetts the courts have held that equity investments are permissible.

Mr. O'CONNELL. Does the legal list in New York operate substantially as a substitution for the responsibility that each trustee would ordinarily have under the Massachusetts rule?

Mr. WHITE. I would say not. I think even where the trustee is operating under a list such as we have in New York, the court still holds him to pretty strict responsibility.

Mr. O'CONNELL. That is, it is possible that he might buy securities that were within the list and still be held to have breached his fiduciary duty?

Mr. WHITE. That is correct, depending largely upon the needs of the particular trust account in which he made the investment.

Mr. O'CONNELL. But the degree of care required of the trustee is probably less in the eyes of the courts where they follow a legal list than where they follow the Massachusetts rule, wouldn't you think?

Mr. WHITE. I think I would prefer not to express an opinion on that.

Senator KING. At any rate, have you found in New York that the trustees who were acting under this eligible list have measured up to the highest standard of fidelity to their trust so that they haven't been subjected to criticism because they made loans of trust funds upon security that was not adequate?

Mr. WHITE. Well, I believe that the record of the corporate trustees in New York—I refer to corporate trustees because they are the only ones that I have any first-hand knowledge of—has been very satisfactory. There have been some cases of abuse, but not many.

The CHAIRMAN. What has been the effect upon the trust funds of the two systems? Have you any definite information with respect to that?

Mr. WHITE. Well, I haven't any information with me at this time. I am inclined to think that under present conditions most trustees are confining themselves pretty much to Government bonds so that you could look at a trust under the New York law and another one under the Massachusetts law and you would probably find the investments running pretty much parallel.

The CHAIRMAN. So that in effect upon the trustee funds, there is no difference between the two rules actually?

Mr. WHITE. I am saying that only—I think that is true only under present circumstances when trustees are being very cautious and feel that probably they could do as well or better to stay in the Government list, as to go outside.

The CHAIRMAN. How long has the tendency been evident to stay in the Government list?

Mr. WHITE. I would say that it has been in process of development during the past 6 or 7 years—perhaps 8 years.

The CHAIRMAN. In other words, developing over a comparatively long period of time?

Mr. WHITE. That is right.

Senator KING. Does the Government list include State bonds, State issues?

Mr. WHITE. I was referring only to United States Government bonds then, but of course most of the States are also legal.

Mr. NEHEMKIS. Mr. White, I believe that there was an amendment made in the banking law in 1938 which authorized the State banking board upon application of a group of savings banks to add to the regular list corporate interest bearing obligations, not otherwise eligible for investment. Is that correct, sir?

Mr. WHITE. Yes; that is correct, and the banking board acting under that authority has during the past year added to our legal list in New York debentures in an aggregate of about 577 million dollars, and those debentures were of the American Telephone & Telegraph Co., the Liggett & Myers Tobacco Co., the Mountain States Telephone & Telegraph Co., the Socony Vacuum Oil Co, the Southern Bell Telephone & Telegraph Co. The board now has under consideration other securities and it is quite possible, I think, that, under this new statute which places this discretionary authority in the State banking board to pass upon securities when application to list securities has been made to the board by a group of savings banks, it may be quite possible that we may find a partial solution to our problem of broadening the legal list, and I think it is interesting to observe that all of these securities which have been added to the list by the banking board are debenture bonds.

It was not many years ago when only mortgage bonds were thought to be suitable investments for savings banks and for trust funds. In recent years, however, we find that a growing tendency is to shift part of the emphasis from the underlying security to the credit standing of the issuing corporation and I believe that as greater emphasis is placed upon a corporation's earning power and less upon the underlying collateral that the subject of investment in preferred and common stocks is likely to receive more serious consideration.

Mr. NEHEMKIS. Perhaps we might shift that reply you have just given, Mr. White, by saying that if we are going to permit investments in common and preferred stocks, it must follow that earning power has to become the paramount criterion?

Mr. WHITE. That is correct.

Mr. NEHEMKIS. What is your opinion, Mr. White, relative to the suitability of preferred and common stocks for inclusion in the list of legal investment?

Mr. WHITE. I would be opposed to adding stocks to our present legal list in New York. However, if a separate list for trustees were established, I believe that consideration might properly be given to stocks as a medium of investment. This would not constitute a radical departure from accepted practices. For many years trustees have invested in preferred and common stocks for the account of trusts with respect to which they have managerial discretion; likewise preferred stocks have been regarded for many years as suitable investments for life-insurance companies.

In considering stocks for trust investment it is important to bear this in mind, that some of our most successful corporations have little or no funded debt these days. It would seem that the purpose of many trusts which are concerned with income might be better served by inclusion of some high grade common and preferred stocks. The principal reason for not permitting savings banks of ours to invest in stocks is that the matter of fluctuation of market values

is of little importance to trusts in comparison with banking institutions.

In weighing the advisability of granting broader discretion to trustees to select investments, we should also take into account the fact that the bulk of trust investments of the trust business today is done by corporate fiduciaries which are able to retain the services of experts to pass upon their investments, whereas the legal list was originally set up at a time when trustees were usually individual laymen and needed more guidance, probably, than they do today; and it was also important to bear in mind that at the time these standards were set up the issuance and sale of securities was not regulated in the manner that it is today.

Mr. NEHEMKIS. I take it, then, Mr. White, it is your opinion that if the legal list were broadened along the lines that you have just indicated we could to some extent stimulate investment outlets in private enterprise presently closed to the investment funds of some of our trust institutions and savings banks?

Mr. WHITE. I think that over a period of years it is important that our laws permit trustees to invest in all of the sound securities that are available. Otherwise, we cannot keep open the channels by which the savings flow into the capital investments of the country and, likewise, we will be denying to trusts and to savings the income which they need.

I would say that over a period of years certainly the legal list and the laws relative to investment of savings and trust funds has a direct bearing upon the question that you mention.

Mr. NEHEMKIS. Mr. Chairman, I have no further questions.

The CHAIRMAN. Do any of the committee members desire to ask Mr. White any further questions? Mr. O'Connell? Mr. Henderson?

Mr. HENDERSON. Mr. White, in this trend toward Governments, that you have described, which took place both under the Massachusetts rule and under the legal list of New York State and other States, was there any unfortunate experience of trustees which raised doubt as to their wisdom in choices they had made in the past and drove them to securities almost surely not to be questioned by the courts as to their fiduciary capacities, or was it just the general volume of Governments that was available?

Mr. WHITE. Well, undoubtedly the trustees quite generally in the past few years have had many unpleasant experiences with securities which they purchased and thought were good which didn't stand the test of the last few years, and that was probably a factor in making them a little more conservative. I think another and very important factor is that with low money rates, high-grade bonds have been selling at a premium so that the income advantage from buying the securities of corporations as against Government bonds was not great enough to justify going into the private field. I don't mean to give the impression that investments are not and have not been made in private industries because unquestionably great volumes or great amounts of money have been invested in those securities and are being so invested. Otherwise, these securities would not be selling at the premium that I refer to.

Mr. HENDERSON. But as between the Government bonds with practically complete protection against any question that a trustee has

to resolve, and the case of the risk taking which goes with others, it has been almost inevitable.

Mr. WHITE. That has certainly been the trend in my experience.

Mr. HENDERSON. We have moved away from even the normal amount of minimum risk taking by these substantial pools.

Mr. WHITE. I have here some consolidated figures with reference to savings banks on that, if you would like me to give them to you.

Mr. HENDERSON. I would very much.

Mr. WHITE. In 1931 the savings banks in New York had invested in Government bonds, United States Government bonds, $329,846,000. That amount increased every year since 1931 until at the end of 1938 it was $1,441,553,000. In terms of percentage of assets; that is, in 1931, the percent of United States Government bonds to total resources in savings banks was 5.5 percent, and at the end of 1938 it was 23 percent.

Mr. HENDERSON. At the expense of what securities was that gain in percentage made? What types of securities in that same period had diminished in attractiveness?

Mr. WHITE. In 1931 the savings banks held $817,670,000 of railroad securities, and that amount decreased each year until the end of 1938, when it was $417,000,000—nearly cut in half. In 1931 railroad securities constituted 14 percent of the total resources of savings banks and at the end of 1938, 6.7 percent.

Senator KING. Are the savings banks to which you are referring all in New York?

Mr. WHITE. Yes; all in New York.

Senator KING. You haven't the figures there showing the investments of savings banks throughout the country?

Mr. WHITE. No; I haven't.

Senator KING. And the categories of securities which have been approved by them?

Mr. WHITE. No; I am sorry I haven't.

Mr. HENDERSON. Mr. White, another question: Has this additional necessity of caution on the part of institutions such as you mention, and the consequent greater increase in percentage of governments, had any effect upon the market price of these securities, in your opinion? In other words, has there been a greater demand for the Government bonds which has seriously moderated or affected the price of the others?

Mr. WHITE. Well, yes. Of course, there are probably two important factors affecting Government bonds. One is the member banks excess reserves that exist and the other is the fact that other banks find it difficult to find acceptable borrowers and to find outlets in other corporations by investing in the securities of corporations.

Mr. HENDERSON. And there is a lowered availability of real-estate loans.

Mr. WHITE. That is correct. I meant to mention that in connection with your previous question. You said, "What other types of assets went down when governments went up?" There has been a gradual downward trend in the mortgages held by savings banks. I don't have those figures here at the moment, but I think that at the present time savings banks have about one-half their total resources in New York invested in mortgages, but banks do find it difficult,

with their deposits tending to rise or at least to hold, to lend that money on acceptable mortgages.

Mr. HENDERSON. I gather from your testimony that this pressure on the legal list has impelled your Board, the Banking Board, to think of additions. But going beyond that relatively narrow need for a greater volume of acceptable securities, they have the feeling that the economy would be better off, also, if those pools of savings, or some part of them, could be canalized into the investments of substantial American industries that have had exceptionally good records for earnings over a period of time.

Mr. WHITE. That is correct. I would say that when a corporation has been operating in a field long enough to demonstrate its stability, its ability to earn, that then our laws should be flexible in some way to permit trustees and savings banks to make investments in that sort of business.

Mr. HENDERSON. Over a period of time some of our industrial companies have had a far better record of earnings than some of our political subdivisions that were eligible on the list at times, haven't they?

Mr. WHITE. Yes.

Senator KING. May I ask a question? Is any preference given to the stocks and securities of corporations that have been formed outside of New York? In other words, is preference given to local corporations over corporations organized in other States?

Mr. WHITE. No; no preference is given to corporations formed under New York law or under any other law. Most states, I think, give a certain preference in their legal list to their own state obligations and possibly to their municipal corporations.

Senator KING. Do you have any data indicating the percentage, the proportion of loans which have been made to corporations outside of those which are existing under the New York laws?

Mr. WHITE. Corporations outside of New York?

Senator KING. Yes; that is, corporations other than those organized in New York.

Mr. WHITE. No; I'm sorry I haven't.

Senator KING. Are you familiar with this measure which was recently passed by the Senate—I don't know its fate in the House—the so-called Barkley bill, which requires debentures to be registered?[1] Are you familiar with that?

Mr. WHITE. That is the bill regulating the corporate trust departments, in effect, of the trust companies and the national banks exercising fiduciary powers. I'm sorry; I have read the bill, and I think it was in the Senate for the last 2 or 3 years. I have been fairly familiar with it at times. At the moment, though, I am not.

Senator KING. Would the registration of those debentures, if that measure were passed or if the States should pass laws requiring issues of stocks and bonds to be registered, have any effect upon the salability, the marketability, of debentures, securities of corporations?

Mr. WHITE. I suppose that it might have some effect in some cases.

Mr. NEHEMKIS. Mr. White, the bill to which Senator King refers I think is the bill which requires corporate trustees to submit their trust debentures to the Securities and Exchange Commission.

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[1] Subsequently enacted—Public Law No. 253, 76th Cong., 1st sess. (53 Stat., chap. 411).

Senator KING. Yes; the so called Barkley bill.

Mr. WHITE. I'm sorry; I don't feel I am sufficiently familiar with that bill at the moment to discuss it.

The CHAIRMAN. How many States follow the New York rule, Mr. White?

Mr. WHITE. If you permit me to make a guess on that, I would say a minimum of 25.

The CHAIRMAN. And how many States follow the Massachusetts rule?

Mr. WHITE. Probably not over 10 or 12.

The CHAIRMAN. Were you here yesterday during the testimony of Dr. Davenport?

Mr. WHITE. No; I wasn't.

The CHAIRMAN. Are you familiar with the extent to which savings and deposits have accumulated in your jurisdiction?

Mr. WHITE. Well, I think I have some information about it. I don't know whether I am as familiar with the subject as Dr. Davenport or not.

The CHAIRMAN. For example, Dr. Davenport presented as "Exhibit No. 611" [1] yesterday, Concentration of Assets in Principal Reservoirs of Saving, and this showed that of a total of $56,500,000,000 there are concentrated in the institutions of five States—New York, New Jersey, Massachusetts, Pennsylvania, and Connecticut—67 percent of the total. New York State alone has 33⅓ percent of the total of all of these assets. New York has 33⅓ percent of all of the assets and $18,800,000,000. You are familiar with that picture, are you not?

Mr. WHITE. Yes. If I may ask, does that figure include what he regards as savings, no matter where they may be held?

The CHAIRMAN. This chart, as I understood his testimony and as I recall it, refers to the assets, not particularly to the savings, the investments controlled all over the country wherever they may be located, but they are under the control of these institutions in your State.

Mr. WHITE. That figure obviously wouldn't have included all deposits, all resources of banks, and, at the same time, resources of savings banks, insurance companies, and trust funds. The figure would be much too low for that.

The CHAIRMAN. Well, he had several tables. One showed the concentration of assets of life-insurance companies and on that table 6 companies in New York State has assets of $14,900,000,000.[2] The 25 largest companies control 87.2 percent of the assets of all companies. Six of these companies are in New York, 10 in New England, 1 in California, 1 in Wisconsin, 2 in Iowa, 2 in Philadelphia, and 3 in Ohio and Indiana.

Then the chart showing the concentration of assets of mutual savings banks indicated that 53.64 percent of the total of all of these assets of mutual savings banks were concentrated in New York State, and 42.33 percent in the city of New York.[3]

Mr. WHITE. That figure is readily ascertainable and sounds correct to me.

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[1] See supra, p. 3765.
[2] See "Exhibit No. 608," supra, p. 3752.
[3] See "Exhibit No. 609," supra, p. 3759.

The CHAIRMAN. Then there was a similar chart showing the concentration of assets of commercial banks.[1]

I am calling your attention to that because these accumulations of information impressed me with the magnitude of the savings and of the assets which are under the jurisdiction of the New York law and of the division of the New York government, of which you are the representative. Do you know what these great institutions are doing to encourage what we have been calling free, independent, private enterprise throughout the country?

Mr. WHITE. I think it is safe to say they are all advocates of that principle, and I think that the banks, with due regard to their depositors, have been anxious to make loans and to make investments, because only in that manner is it possible for them to earn money and to pay their dividends.

The CHAIRMAN. Yes; but, as I understood your testimony, the New York law confines legal investments largely to mortgages and to Government bonds.

Mr. WHITE. Railroad securities and utilities.

The CHAIRMAN. I was going to divide the two so that the only so-called private obligations which are legal for investment in New York State are the railroad and public utility obligations.

Mr. WHITE. We are speaking only, of course, Senator, of trust funds, which are restricted to the list, and to the deposits of savings banks. The total resources of all the institutions subject to the supervision of the banking department is about $18,500,000,000, and this restriction applies to a relatively small part of that, you see.

The CHAIRMAN. It is still a very substantial amount.

Mr. WHITE. It is. It is still a very substantial amount.

The CHAIRMAN. We had some testimony yesterday, as I recall, to the effect that there were probably $50,000,000,000 in the whole country in trust funds of one kind or another.[2] Do you regard that as a reasonable estimate?

Mr. WHITE. Of course, the term "trust funds" is one that has never been defined in a way that is acceptable to everyone. I have no knowledge of the amount of trust funds. If you take into consideration foundations, endowment funds——

The CHAIRMAN (interposing). Those were taken into consideration.

Mr. WHITE. Funds held by individual trustees, and so on.

The CHAIRMAN. Those were taken into consideration.

Well, here we have a picture of a tremendous concentration of assets. Of course, only a fraction of those assets are under the restrictions to which we are referring here and on which your testimony is based, but the New York rule sets the style for all of the States of the country. But the organizations in which these investments may be made, aside from the Government securities, are national business enterprises. The railroads and the public utilities are national. These institutions exercise an influence far beyond the confines of the State of New York, but New York, the New York Legislature, makes the rules, and all the other States follow; or 25 of them, approximately, according to your estimate, follow that leadership.

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[1] "Exhibit No. 610," supra, p. 3762.
[2] Supra, p. 3729.

My thought is that that arises from habit. When these restrictions were laid down by the New York Legislature investment was largely a local matter and not a national matter. Even the railroads were more or less local. What I am leading up to is the question of what significance you give to the circumstance that most of the business upon which our economy now depends is national in its scope, yet the whole investment policy is apparently fixed by the concept of a local legislature in New York.

Mr. WHITE. Well, I think that we should bear in mind, in connection with that, that the national banks, for example, are permitted to invest in such securities as Congress permits them to invest in, and that accounts for a very large proportion of the banking resources of the Nation. Through the Federal Reserve System and through the Federal Deposit Insurance Corporation similar control is exercised over most of the State banking institutions in this country, so that New York really isn't setting the style—at least not any more—for the investments of banking resources. When it comes to trust funds and savings banks investments, it is I think still pretty much true that New York is followed by other States.

In the insurance field, of course, since insurance corporations are not formed under the laws of Congress, I think that because of that fact New York exercises a great deal of influence in the field of investments for life insurance companies. I think that the insurance corporations subject to the supervision of the State insurance department have resources of something like 19 or 20 billions. However, the legal list, if we may call it that, of life insurance companies is much broader than the one to which I have been referring. Under the insurance law, investment is permitted, for example, in preferred stocks of corporations that have been tried and found capable of earning a reasonable amount over a period of years.

Mr. HENDERSON. And can an insurance company buy an F. H. A. guaranteed loan in the State of New York if the property is located outside the State of New York? Do you happen to know?

Mr. WHITE. I probably could find that.

Mr. HENDERSON. Let me ask it this way. So far as these trust funds you have been discussing today are concerned, they are not available for taking F. H. A. bonds unless the actual property is located in the State of New York. Is that it?

Mr. WHITE. When the first law was passed, my recollection is that the mortgages were not limited to property located in New York. I think later on it was amended to so restrict those mortgages. We found, I believe, for banking institutions to invest in mortgages that are located, or on property which is located at a considerable distance from the banking institutions, was unwise.

Mr. HENDERSON. Is that based on any experience as to the loans going bad or of the difficulties of management in case the loan has to be taken over? You say it was found it wasn't a good thing. I was wondering what your basis was?

Mr. WHITE. Unless the investor is going to rely entirely on the insurance under the F. H. A. plan, he should be in a position to check up on his property and to know whether the property is being kept in proper condition, whether the taxes are being paid, what the trends are in the neighborhood, and he cannot do that unless he

expends considerable money in doing it if the property is located in another State or at a considerable distance from where he is doing business.

EFFECT OF EXPANDING THE LEGAL LIST ON FLOW OF INVESTMENT FUNDS

Mr. NEHEMKIS. May I interrupt? The chairman's line of question to you a moment ago, Mr. White, suggested this question to me: Is it your judgment that if the superintendent of insurance of the State of New York and the superintendent of banks of the State of New York, respectively, revised and expanded their list along the lines proposed by you this morning, that such expansion would have a profound effect upon the flow of investment in this country? By that, perhaps I had better add, I mean in encouraging other States which we all recognize realistically follow the example of New York to revise and modify their own laws.

Mr. WHITE. I have with me here a copy of the insurance law with respect to investments, and the insurance law in New York was recodified by this session of the legislature and some changes were made in that law. I believe that by and large the insurance law is broad enough to permit investments in all of the types of corporations that we feel our savings banks and trustees should be permitted to invest in, so I think that such problems that may have existed in the insurance law have already been met and to a large extent I think we are meeting it in the case of our savings banks and trustees. I do feel, as I indicated before, that that is a matter which should have great influence over a period of years in determining the flow of capital.

Mr. HENDERSON. Mr. White, in your contemplation of expansion of the list to include industrials you would, of course, give no consideration except to seasoned companies and their securities?

Mr. WHITE. That is correct.

Mr. HENDERSON. That would mean that for some time at least the competition for these industrials which are already listed would be increased to the extent that funds would be available from those savings institutions.

Mr. WHITE. That is correct.

Mr. HENDERSON. It wouldn't add tremendously to the opportunities for new investment right off the bat, would it?

Mr. WHITE. Not right off the bat. Of course, it is impossible to estimate the number of billions of dollars that may be eligible for investment, that is, that may properly be accepted for investment. The figures that I gave you a few moments ago indicated that about $6,500,000,000 of rail securities have come off the list since 1931.

Mr. HENDERSON. They have passed to other owners.

Mr. WHITE. Well, they have come off the list. The savings banks never did hold all of them, of course.

Mr. HENDERSON. They owned about 14 percent.

Mr. WHITE. They are no longer eligible now; obviously that places more pressure on the rest of the list.

Mr. HENDERSON. What I am getting at is that the competition would be for securities that have existed for quite a long time. Most of these corporations have not shown any need for new investment, and there would be exchange of ownership for the most part to begin

with rather than any direct encouragement of new investment which would result in new plants and equipment.

Mr. WHITE. Well, we have always found this: That corporations issuing securities in New York are very anxious, if possible, to comply with the list so that they can have their security included on the list. It usually means something to them in terms of the conditions or the terms upon which their security is sold, and that is true, I think, even today when there is an abundance of money available.

Mr. HENDERSON. There is no doubt that they would like to have a better status as far as their securities are concerned, but what I am getting at is, as testimony last week indicated, these companies are not in the market for new capital funds.

Mr. WHITE. Yes; that is true.

Mr. HENDERSON. That is, the capital that is represented, say, by the securities of General Electric registered on the New York Stock Exchange has long since been expended. Whatever was the accumulated effect of the purchasing power generated there has died and has gone. And they testified that they were not in the market for new capital. In effect, the first real result would probably be to stabilize the market values of the securities of some of the leading corporations, wouldn't it?

Mr. WHITE. Yes; I would think that would be true, and I would think to permit the savings banks to make investments in those securities in normal times would be much more important than it is today.

Mr. HENDERSON. That is, if you would have any decline in the market value, market quotations of a security of industrial company that had gotten onto your preferred list, then there would be niggardliness on the part of your institutions to take it on and it would have an unstabilizing effect.

Mr. WHITE. That is correct; yes.

The CHAIRMAN. Aside from the present conditions which compel investment in Government, as I understand your testimony, what in your opinion is the effect upon the general investment situation of this limitation in the New York law which bars the ordinary industrial corporations, equity investments, in other words? Or let me put it in another way. Do you believe that it would be advisable to permit the investment of trust funds in equities?

Mr. WHITE. I certainly feel that with proper safeguards investments of trust funds might be permitted in preferred stocks; in the matter of common stocks, I think that people who have studied the question may not be in complete agreement, but certainly there is a pretty large school of thought that believes such investments should be permitted.

The CHAIRMAN. Has it been proposed to the New York Legislature?

Mr. WHITE. Yes; it has been proposed last year to the New York Legislature and was not accepted, but most legislation of that kind is not accepted the first year it is presented.

The CHAIRMAN. Do you know why it was not accepted?

Mr. WHITE. I think it was perhaps lack of understanding of the problem to be met and the fact that sufficient time was not available to explain it to the legislature, and to explain its purpose.

The CHAIRMAN. Well, of course if that were done it would then become necessary for your offices to supervise very carefully the

character of the preferred stocks which were admitted to the list and the corporate structure of the corporations issuing them, would it not?

Mr. WHITE. Well, some sort of a check would certainly be necessary. Under the insurance law—the insurance law does not provide for a list of securities in the sense that the banking law makes such provision, but it merely prescribes the tests that must be met by the corporations and then the investor takes his own responsibility for deciding whether a particular corporation meets those tests or not. Now having made that decision and selected investments, he is open to criticism or to some order from the insurance department, I assume, to get rid of that security, or to possibly make good a loss in it if it is found that it did not comply with those tests.

The CHAIRMAN. And to that extent the State exercises a great deal of control over the corporate structure of corporations chartered in other States but seeking an outlet for their securities?

Mr. WHITE. Yes; to some extent I would say that is true.

The CHAIRMAN. Are there any other questions to be asked?

Mr. TAYLOR. One question I would like to ask. Mr. White, if a new legal investment list were made up providing for the inclusion of common and preferred shares, is it your thought that it is desirable to have a ratio provided for by law, a maximum above which investment in stocks could not go, or would it be more desirable from an administrative standpoint to apply the discretionary idea of, let us say, the Massachusetts rule? It seems to me that is a very important consideration that I don't think has been touched upon.

Mr. WHITE. I do think that is a very important consideration and the suggestion was made to the New York Legislature a year ago that provided that not more than a certain percent of any trust funds could be invested in stocks and equities.

Mr. TAYLOR. The fact, of course, would still remain that somewhere very careful thought would have to be given to the consideration within that ratio of the stocks to be included?

Mr. WHITE. That is correct; it is a very important consideration.

The CHAIRMAN. If there are no other questions, the committee will stand in recess until 2:30 o'clock.

Mr. NEHEMKIS. Mr. Chairman, would you care to announce the witness for this afternoon?

The CHAIRMAN. Mr. A. A. Berle is to be the witness brought by the Securities and Exchange Commission this afternoon.

(Whereupon at 12:05 noon, a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

(The hearing was resumed at 2:40 p. m., upon the expiration of the recess.)

The CHAIRMAN. The committee will please come to order. Mr. Nehemkis, are you ready to proceed this afternoon with Mr. Berle?

Mr. NEHEMKIS. That is correct.

The CHAIRMAN. And then tomorrow you have?

Mr. NEHEMKIS. Dr. Alvin Hansen, who appeared here earlier.

The CHAIRMAN. That will be part of this presentation?

Mr. NEHEMKIS. That is correct.

The CHAIRMAN. To be followed by the Little Business study?

Mr. NEHEMKIS. That is correct.

The CHAIRMAN. And we will be able to conclude those hearings this week?

Mr. NEHEMKIS. I believe so.

The CHAIRMAN. Because several of the members of the congressional group have a feeling that they should be permitted to pay a little attention to other legislative duties.

I think it might be well to announce at this time that the investment banking presentation will be postponed until a later time.

Mr. Berle is to be on this afternoon?

Mr. NEHEMKIS. Yes, sir.

Will you take the stand, Mr. Berle, please?

The CHAIRMAN. We have been following the practice of swearing the witnesses, even though they are in some cases only offering opinions.

Mr. BERLE. It is understood this is only an opinion.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in this proceeding will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. BERLE. I do.

## TESTIMONY OF HON. ADOLF A. BERLE, JR., ASSISTANT SECRETARY OF STATE, WASHINGTON, D. C.

Mr. NEHEMKIS. Will you state your name, sir, and address?

Mr. BERLE. A. A. Berle, Jr. The address is State Department, in Washington, or 70 Pine Street, New York City.

Mr. NEHEMKIS. You are presently, are you not, Mr. Berle, Assistant Secretary of State?

Mr. BERLE. Yes. I should like to make it plain that I do not appear here in that capacity, however.

Mr. NEHEMKIS. I understand, sir. We are merely identifying you for the record.

You have been at one time chamberlain of the city of New York, have you not?

Mr. BERLE. Yes.

Mr. NEHEMKIS. And a member of the listing committee of the New York Stock Exchange?

Mr. BERLE. Yes.

Mr. NEHEMKIS. You are presently, are you not, Mr. Berle, a member of the faculty of the law school of Columbia University?

Mr. BERLE. Yes.

Mr. NEHEMKIS. I suppose it would be a fair statement, would it not, Mr. Berle, to say that you have spent most of your professional life dealing with the problems of corporate law and corporate finance as we so designate those fields?

Mr. BERLE. Yes; I think that is true.

Mr. NEHEMKIS. Are you prepared to testify this afternoon, Mr. Berle, concerning the investment banking mechanism and the need for a banking system for capital and capital credit?

Mr. BERLE. Yes.

Mr. NEHEMKIS. Will you proceed, sir?

Mr. BERLE. Mr. Chairman, gentlemen of the committee, you have already had very fully developed before you the actual flow of capital from the time when it is created by way of savings or by the use of bank credit, through various institutions and so out eventually into what one hopes is constructive capital work. That flow, of course, has changed materially in the past two decades and the method of it still more. It has finally reached the point where, in my humble judgment, we could profitably take account of stock and of the factual changes which have happened and where we may fairly be asked to consider a modernization of the machinery.

In going into this, if you will bear with me, I first want to make it plain, of course, that I speak for myself. I happen to be called as a witness by the Securities and Exchange Commission who are conducting this investigation, but my views are my own, and the last thing in the world I would like to do is to suggest that they have any responsibility for them—not that they would not cheerfully disclaim it if they felt like it, but I would like to get the disclaimer in first.

### FUNCTION AND DEVELOPMENT OF CAPITAL CREDIT MECHANISM

Mr. BERLE. Now, the blunt truth about the situation is that the old-style capital credit mechanisms to all intents and purposes ceased to function about the year 1931. I don't know that we need to go into the reasons for it now. There were many. But that phenomenon occurred in the United States, and it likewise occurred practically everywhere else in the western world. It was at least partly due to that that we had what has sometimes been known as the depression which followed 1929.

It was probably increasingly aggravated in the United States because we here had gone less far along the road of a modern capital banking mechanism, perhaps, than some of the countries elsewhere in the world. The immediate effect of that, as you know, was a distinct diminution in the amount of capital, whether it was savings or bank credit, which actually flowed through the mechanism of the public markets into the kind of construction and work which we normally associate with capital goods. I think the arithmetic on that has been done and while I should imagine this committee already had had its fill of charts, I merely submit one, but the English language is sufficient, perhaps, to describe it without going into it in too great detail.

Roughly speaking, in the decade 1920 to 1930——

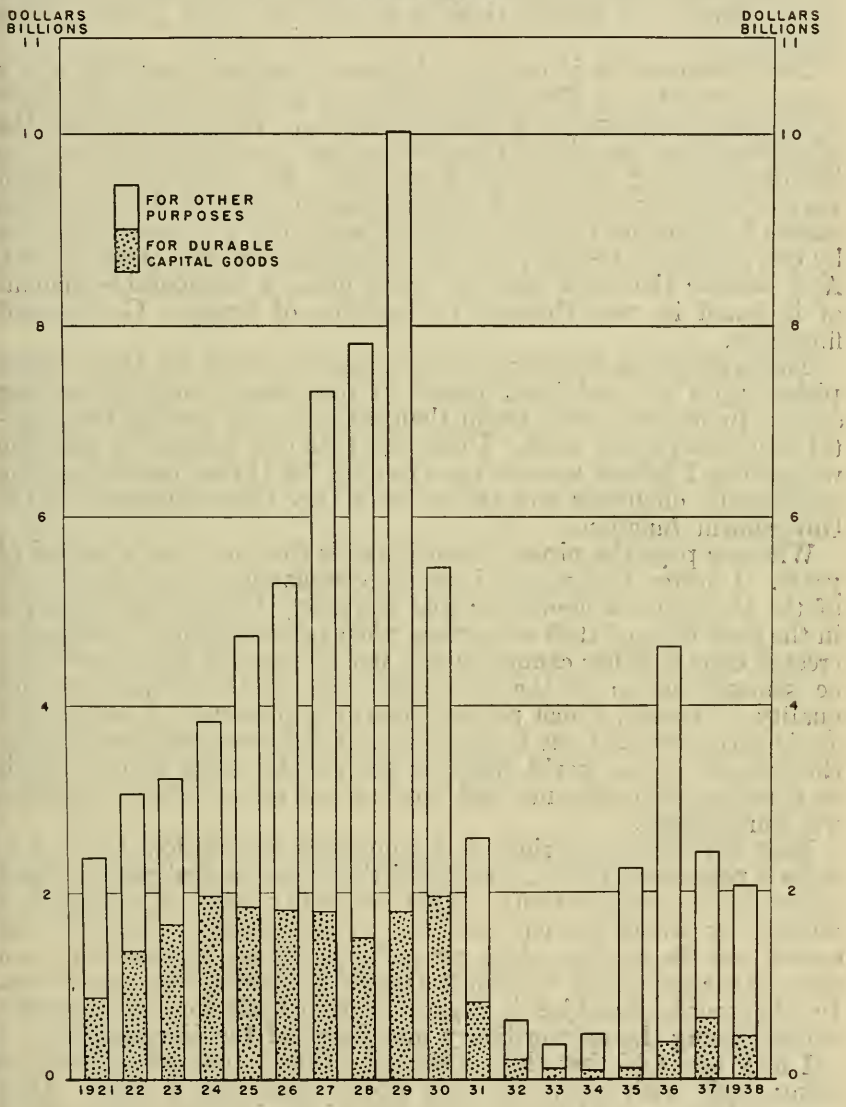
Mr. NEHEMKIS (interposing). You are now referring, Mr. Berle, to the chart entitled "Corporate Securities Issued"?

(The chart referred to was marked "Exhibit No. 617" and appears on p. 3811.)

Mr. BERLE. That is right. During that period the public capital markets associated with investment banking as we know it handled on an average of around 6 billions of securities a year. They fluctuated violently, of course. Out of that about 2 billion actually went into honest construction work. I think, myself, that figure is an underestimate. The balance that you see there represents refunding issues and in some cases mere financial pyramiding. Of that refunding work and of the purchase of existing properties, some part of this line above the 2 billion undoubtedly also found its way into

EXHIBIT No. 617

# CORPORATE SECURITIES ISSUED

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capital construction, but the solid figure that you can tie to of money that actually did some work and found its way to that work through the mechanism of the capital markets, of course, is about 2 billion, and you see it on the chart there.

You will note that in the year 1930 we were running on about a regular average, and in 1931 that drops away down to less than 1 billion; and since that time the public markets, at least, have never done anything like the amount of work which they were relied upon to do before, and behind that, of course, you have a whole huge drama.

The first question is not what happened, but whether that was a complete cessation. The answer is that it appears not to have been a complete cessation, but a partial cessation. We no longer had the 2 billions going into direct construction and an additional amount to handle refunding, and that kind of thing. We actually had a small part of it going in through the mechanism of the public markets; other of that capital trying to find its way toward a constructive use by one process or another, sometimes successfully and sometimes not. And because the work was not being done, a considerable amount of it found its way through the medium of straight Government financing.

That appears in Government debt, cases in which the Government picked up a job and itself issued its own bonds, thereby securing capital (more often bank credit than savings) and putting that capital into constructive work. I may say that that presents a situation with which I believe we now have to deal, for if that process goes on indefinitely, obviously you are in for a very large expansion of the Government function.

Whoever pays the piper eventually calls the tune over a period of years. I hasten to say that I am not criticizing in any way the use of the Government credit for that purpose. I myself advocated it in the dark days of 1933 on because when private capital or privately created capital either cannot or will not go to work, as the case may be, someone has to get the work done, and the Government has one quality, of course, which private enterprise does not—it always can act if necessary, and our Government, as did practically every other Government in the world, filled up the gap by using its own credit to stimulate into existence and into use the money which otherwise was immobilized.

That is perfectly all right as a temporary proposition, but if it is to be a permanent policy, you would then have to deal with a whole other set of considerations. What we really seek, of course, is a method by which the currency and credit which we have or can create, and the savings which we undoubtedly are accumulating can move so far as possible without the use of that extraneous mechanism. In other words, the object is to get as much of this done as is possible without using the extraordinary machinery of the Government.

I may also add that the problem, I think, is one which requires being dealt with now. Business cycles don't last forever. They come and they go; while the down turn of this business cycle when it comes will not be reflected in failing banks. It will be reflected, or could be easily reflected, in increased unemployment, and that precipitates a social problem in a very real sense. You may say that on the

solution of the problem you are now examining the social issue in the United States in the decade to come probably turns.

If we can handle through our banking system and our economic system the normal needs of the country and the normal needs for employment, we shall probably avoid the head-on impact of forces which led, as you know, to extreme difficulties in Europe and in some cases to revolutions outright. I hasten to say that this is not a prophecy of revolution here. It merely means that by intelligent action here we can probably forestall a period of very considerable stress later on, and we have, I think, all of us seen enough of stress so that we don't particularly want to see any more.

Now the odd fact about our capital credit machinery as contrasted with our commercial banking is that the investment mechanism we run on today substantially has not changed in nearly a century and a half. It is about the machinery that was invented by the house of Rothschild at just before and after the time of the Napoleonic wars: the process of finding savings somewhere, either individual or institutional, of selling bonds broadly and thereby accumulating a part of capital which could be applied to a known need.

That was a system which worked well enough, I presume, at the time it was developed. Meanwhile, however, our commercial banking system was moved along through the long phase of the establishment of the European central banks, the realization that you created credit which is much the same as currency against a flow of goods; and the whole conception has emerged that you were supposed to use that money for the purpose of getting the flow of goods that you needed, of getting the goods processed, or, in other words, that the job of a financial system was to get men and materials organized to do the needed work, and, when it was done, to take the goods from the place where they were to the point where they were needed.

A final development is worth noting, though it happens to have occurred in countries which have nothing in common with our own system. In the so called totalitarian governments, including therein Russia, which fairly can be so classed, of course, the theory is that you ought always to grade your finance to the necessary amount of production that you want, never to limit the production by your financial machinery. That is not peculiarly either a Communist or a Fascist idea. It is, in fact, the idea that every country has, or has had, when, for instance, it was at war or in any kind of stress; and I rather think in so doing those governments have merely fallen into an idea which, oddly enough, happens to be, strictly speaking, an American idea.

### ROLE OF BANK CREDIT IN CAPITAL FORMATION

Mr. BERLE. It is interesting to note that the first great breach in the theory of this was made by an American in 1918. That was Prof. Harold Moulton, who is now the head of the Brookings Institution. Prior to that time it had been assumed all the money that went into capital construction was savings. There could be no other. I may say that that assumption was fairly well founded, because in the earlier economies we had never produced currently all of the goods for consumption that the country could absorb. It was, therefore, necessary to ask people not to consume everything that they produced, to forego that immediate advantage, and by that process to

take a part of the materials and energy which would have gone into consumption and use it for capital goods instead.

When the scientific development which began in 1900 began to reach its peak, we suddenly found ourselves in a state of affairs which is frequently described as a surplus economy, by which I mean that the productive mechanism of the country could produce more than the effective demand. At that point there was no particular need to bribe or cajole or reward anyone for not consuming, because if he consumed everything that he was able to there still was capacity left over, and at that point the economics have distinctly changed.

In that situation, Moulton considered that a considerable part of what we now know as capital was really bank credit; that is, that we had actually, without knowing it, learned the trick of creating currency to do the work of creating capital exactly as currency is created to move a crop or to take care of a businessman's needs. As you know very well, when a merchant discounts a note the bank merely writes up a deposit, in effect prints the currency via the credit route to take care of it, and then withdraws it, deflates it, demonetizes it, as you choose, when the note is paid.

Moulton discovered that during the war and other times we had been doing that in very large degree for capital purposes, with the result that bonds and stocks and securities had been used to create bank credit, that bank credit had created the building of the canal or railroad or whatever it was as effectively as the old savings had done, and from that the conclusion could be drawn that a banking mechanism had always in its power to create capital to any extent reasonably needed, always provided that you kept your price level in order, provided the currency didn't run away. There is a pet banking phrase, "monetization of assets," against that, but I don't know that we need to invent a new jargon for this. It is perfectly simple. It meant in substance working through all the machinery you were using, long-term notes, exactly as we have always learned to create bank balances by the use of the short-term note.

That, of course, while it is dull to state, was a rather staggering change in theory. I don't now go into the added fact, of course, that we meantime had learned a good deal about what construction does, the fact that that does tend to increase the national income by more than the actual amount spent because it engenders a lot of subsidiary activity. That we have already learned, and so while this process in 1921 to 1930 was going on, we were slowly learning that a good deal of the machinery that we were using was not necessary, and in any given situation might not any longer do the work at all.

Now, actually, that happened. I suppose the reason why the old investment banking machinery began to pass out was a double one. It was caught in a vise from two ends. One of them you have already seen: The large companies which they themselves had created had become self-sufficient, as you have seen, I imagine, from the testimony of Mr. Young and Mr. Stettinius. The great concerns were able by internal savings to plow along without any great use of the capital markets, and apparently they continued to do so.

The smaller companies, however, of medium size, used the capital markets and, of course, the very small companies couldn't get to them at all. By consequence, what the investment banker had left to do

was to refund certain of those commercial enterprises which hadn't been able to develop their internal finance such as railroads and the medium or second-grade companies which had not quite got to the stage of United States Steel or General Electric. And that was indeed the bulk of their work. After the tremendous growth of private plant which ended in 1929, the large companies went ahead under their own steam and the small companies did not go ahead at all, and for the moment the supply actually bogged down. That opened up somewhat, as you see, in 1936 and 1937, falling off a little in 1938 and I imagine, just based on present indications, that it will fall off somewhat more in 1939, though that of course we can't tell, the year not being over.

The other end of the vise lay in the fact that the companies which wished to sell securities found an easier way of placing them by what is called private placement. You will find that in the second chart.

Mr. NEHEMKIS. Suppose we pause for a moment, Mr. Berle, while you identify this chart. Read its title, if you will, please.

Mr. BERLE. That is a chart entitled "Growth of Private Placements, Corporate Bonds and Notes, From the Years 1934 to 1938."

The CHAIRMAN. These charts may all be admitted to the record.

(The chart referred to was marked "Exhibit No. 618" and appears on p. 3816. The statistical data on which this chart is based are included in the appendix on p. 4065.)

### FUNCTION OF INVESTMENT BANKER IN CAPITAL MARKETS

Mr. BERLE. While the actual use of the investment banking system by the large corporations was going down, those corporations that wanted to place were placing their securities privately and, as you will see, that jumps from the year 1936 on up until today something over one-third of the total amount of securities actually issued in the market, if you can call it that, really never reached the market at all and never passed through the investment banking machinery except possibly as an investment banker may be of use and collect a fee for advising somebody on it.

Mr. NEHEMKIS. It is true, isn't it, Mr. Berle, that our investment bankers do have occasion to act as intermediaries?

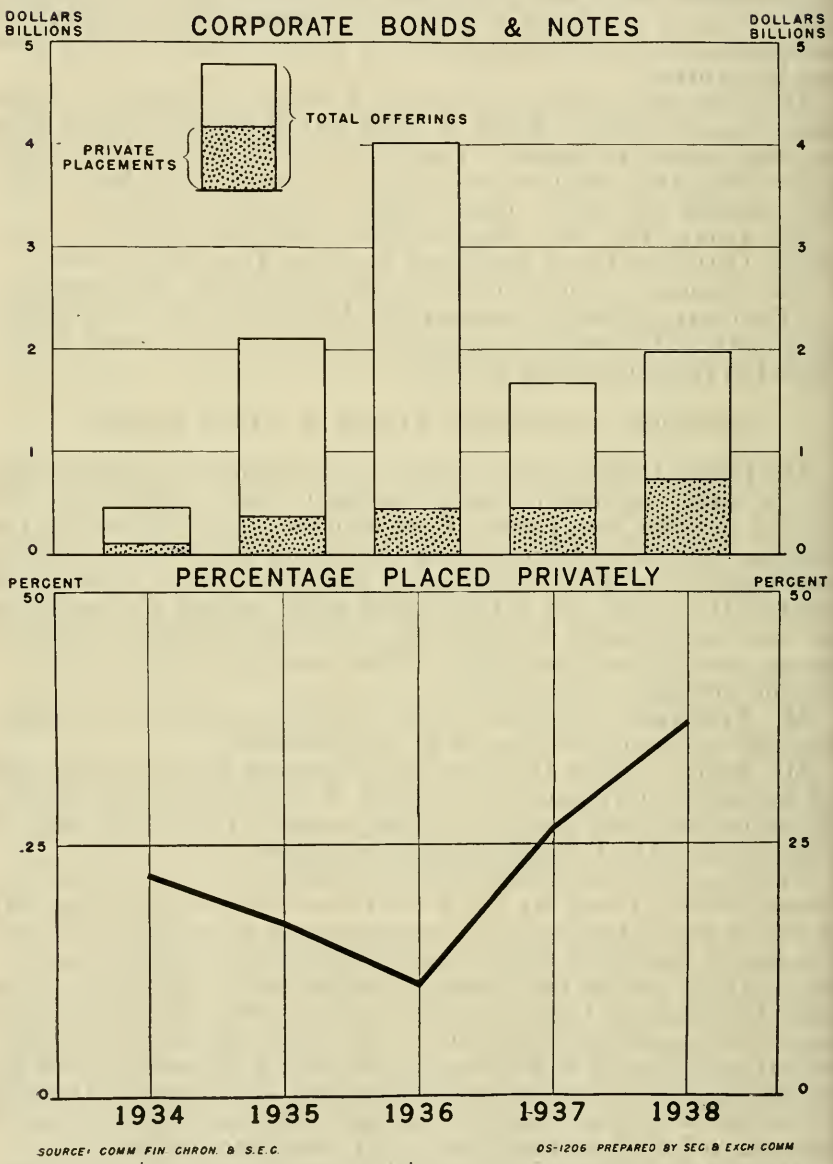
Mr. BERLE. Yes; in that case the investment banker has the job of finding an investment and selling it broadside in the market. What he really does is act as a private broker, a purchasing agent, if you like, for 10 or 15 large insurance companies.

There seems to be no likelihood of the diminution of that situation. Parenthetically I may say that I don't know there is any reason why it should stop particularly. If savings choose to find their way into the capital markets by buying an insurance policy or depositing in a savings bank and let the insurance company or the savings bank do their investing for them, I am by no means clear that the average man isn't a good deal better off. It is pretty difficult for any individual to buy securities intelligently; in fact, it is pretty difficult for an expert to do so, but the great institutions are probably better able to protect their people in a way than any individual is able to protect himself, so I don't see that there is any surprising danger to it.

There is one quality about it which is worth while taking into consideration, and that is the fact that when that happens there is a

EXHIBIT No. 618

# GROWTH OF PRIVATE PLACEMENTS



greater geographical concentration of investment, the bulk of investment of that kind, the privately placed issue, finds its way into the strong institutions frequently in the East, naturally because they are there and they have the connections and so forth.

If you followed the fate of a public issue, you would find that there was a much wider geographical distribution. Yet today even when an issue goes through the public market, it does not scatter itself so very widely. If you were to follow, for instance, the United States Steel issue from flotation to location you would discover that the bulk of that issue wound up in institutions and only a very small fraction of it in individual hands.

There you have the picture of it.[1] This was a public issue and a high-grade public issue, and you will notice that, immediately after offering, roughly 60 percent of it lighted in the hands of banks and trust companies and only 10 percent lit in the hands of individuals. That was the immediate result of the issue.

If you follow it a little bit further, you will discover that the banks and trust companies very largely distributed that issue to their correspondent banks and again a very small fraction found its way into the hands of the general public. What you really have there is the same thing that is done by private placement, only done on a wider scale and a wider geographical scale. No individual, to speak of, got very much of a chance at the United States Steel 3½s. The institutions took them; and, as I say, maybe they are quite as able to protect their people as the individuals are.

Senator BORAH. Was that identified?

The CHAIRMAN. Have you a copy of that chart?

Mr. NEHEMKIS. That chart is not being offered into evidence. It is part of a forthcoming study which will discuss a number of public issues in great detail. They are being marked at this time.

Senator BORAH. His testimony ought to be identified.

Mr. BERLE. I see no reason why that shouldn't be offered in evidence. I think the reason Mr. Nehemkis did not lies in the fact that he is having a similar study made on a number of other issues and doesn't wish to draw unduly from one chart.

The CHAIRMAN. Your testimony will not be as intelligent to the reader without the chart as with it.

Mr. NEHEMKIS. Yes; we should offer it then, if you please, sir.

Mr. BERLE. In that case, I identify the chart. This is a chart headed "$100,000,000 United States Steel Corporation, 3¼ Per Cent Debentures, Due 1948." For the record I will state that that is assumed to be one of a series which the S. E. C. has in mind offering at some later time, and it is here put in by way of illustration.

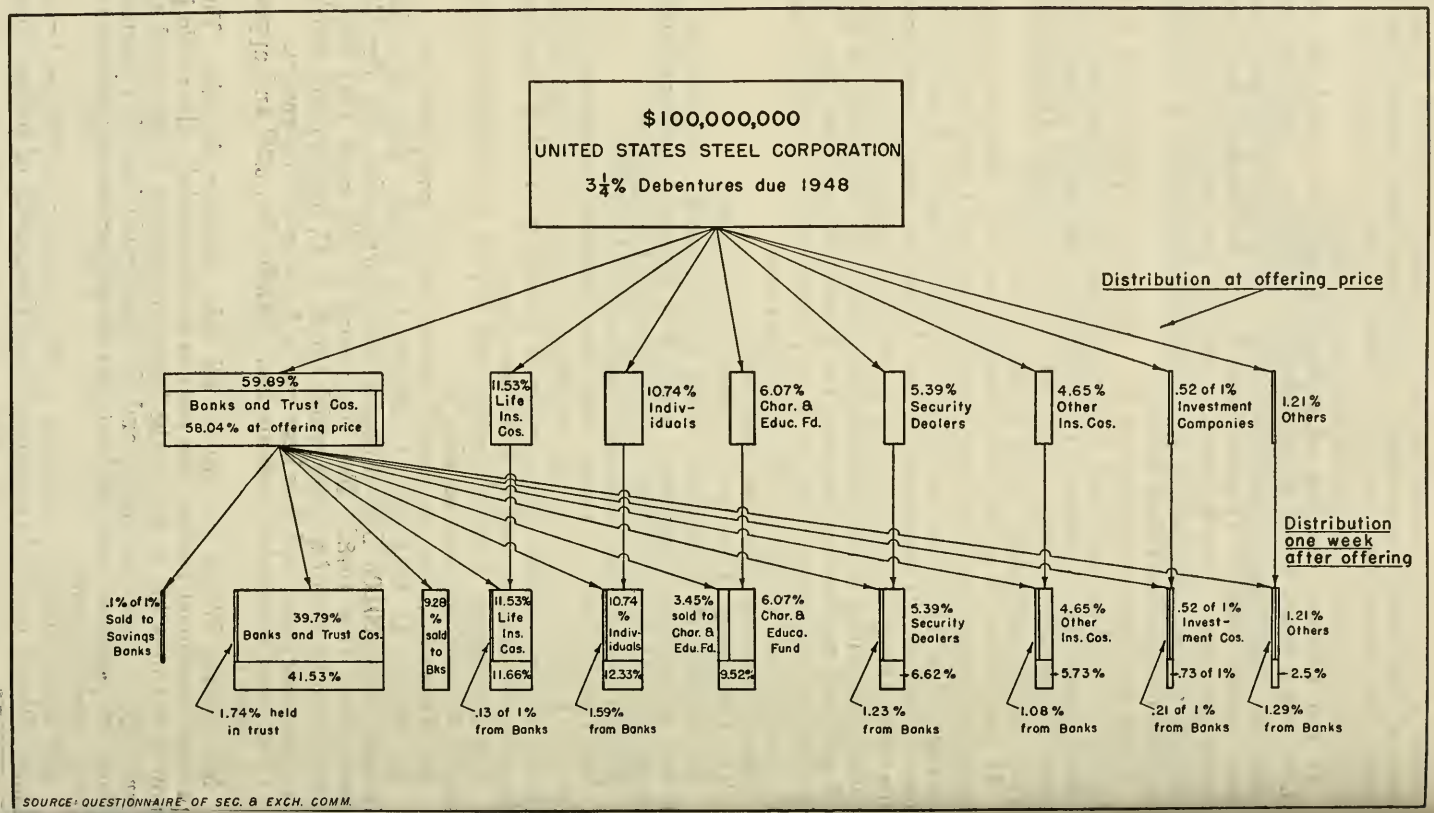
(The chart referred to was marked "Exhibit No. 619" and appears on p. 3818.)

Mr. BERLE. Where we are on all this, however, is this. Your private investment banker who used to do substantially the whole job now is out of a job so far as the large corporation is concerned and certainly so far as the major and the high-grade issue is concerned. They are prepared to do without him altogether except perhaps as a minor service agent.

The actual amount remaining in the market, you will see by the chart which is earlier in evidence, shows the growth of private place-

[1] Referring to "Exhibit No. 619," infra, p. 3818.

EXHIBIT No. 619




SOURCE: QUESTIONNAIRE OF SEC. & EXCH. COMM.

ments which means that now only two-thirds of a highly restricted market remains in any sense public, and that threatens to be increasingly submerged by the newer and swifter system.

We have, therefore, a situation in which, first, we have a real change in theory, and in the second place we have a market that is in large measure closed, and has been for nearly 10 years. In the third place we have a piece of machinery which obviously has a very much restricted function, with no particular reason to assume that its function will change. Briefly, new ways have been developing of doing this particular job.

### OPPORTUNITIES FOR PUBLIC INVESTMENT IF INTEREST RATES WERE SUFFICIENTLY FAVORABLE

Mr. Berle. The question now comes as to whether we cannot see some way out of it. As has been stated, the gap had to be filled, and it has actually been filled heretofore by the use of Government credit on a large scale. Now, unless the Government is going to go into the business of running the entire economic system, of course, that can't go on. Some things undoubtedly are Government functions, and still others are perhaps local government functions, but we still entertain the hope that we shall eventually find ways of doing the bulk of the work that the country needs to be done privately, and that, of course, happens to be our problem.

To my mind, there is no particular danger in the increasing Government debt, provided wealth is created against that debt, for to my mind the result is exactly the same as though you had private debt created against wealth. The objection lies not in any danger either to Government credit or to the fiscal system; the danger lies, as I see it, in the fact that the Government as it is at present organized has only very limited opportunity to create wealth. Some things it can do, but it can't do others unless it is to be reorganized entirely, and nobody wants to do that. By consequence, we have to see whether we cannot use our capital machinery to make it increasingly available for private work which ought to have been done and is not.

Now I doubt, myself, whether we need to assume at this stage of the game that all of the useful work in the United States has already been done. What little I can find out about it indicates that it has not been done. One great area, of course, which we have traditionally used as an avenue for investing capital, no longer exists. That is the development of the great open spaces. There is still plenty of useful work to be done in developing natural resources, but obviously there is no such tremendous and virgin field as there was during the last generation and the generation before that. On the other hand we do have a tremendous amount of work which needs to be done for our own people, and that seems to come from two distinct sources. One is that a modern population makes greater social demands on civilization than our ancestors did, and perhaps rightly. They want better housing and more advantages and some of the fruits of this technical civilization we have worked out, and they rather feel that a way ought to be found to give it to them. Still better, a way ought to be found by which they can earn it, which is still more to the point.

The second avenue, I think, is that when a civilization industrializes itself rapidly, certain general needs grow more rapidly than the growth of the wealth of the country, and they tend to be ignored. Those are the needs, for instance, for things like hospitals and public-health services, and the services of the great cities. A city like New York, for instance, with 7,000,000 people in it, will need not only 7 times as much in the way of public services as a city of 1,000,000, it will need probably 20 or 30 times as much, because the problems of so many people living close together create tremendous cooperative problems that can only be solved by the local government unit. And that process of concentration of population and high mobility has been going on to a terrific degree. The private plant has been beautifully built, but we are far and away behind in the public services.

If I may take as an illustration my own city of New York, there is a noncommercial job there that has to be done. No private individual will be afraid of the competition, because it happens to be in hospitals, and I think very few hospitals ever made any money. We shall need in New York in the next 10 or 15 years to spend approximately $438,000,000 to keep our hospital plant up to date. That does not mean creating a millennium; that means keeping it about on an average of standard services. If you choose to regard that not as a job taht the city has to do but as a market for $438,000,000 worth of men and materials and work, and so forth, you get a picture which is a picture of something which should have been done long ago, and a job which is legitimately the job of the capital market.

You can go on with that kind of thing indefinitely, but the two great avenues, as I see it particularly at the moment, are housing and these local government services which have not kept pace with the actual capital industrial progress.

So long as there is that kind of work to be done, nobody can say that we haven't plenty of outlet for employment, plenty of outlet for capital use. But there is a difference. The noncommercial business, like a hospital or like low-cost housing, or the semicommercial business like middleclass housing, cannot pay the same kind of rate of interest which a commercial enterprise pays. I personally have never been able to see why New York City should pay more than a nominal rate of interest to induce a bank to create credit to permit the city of New York to build a hospital, which is not a profit enterprise and never will be. On the other hand I can see every reason why, if a man wants to build a new chemical plant on which he expects to make a large profit and he wants to issue his bonds and have a bank create credit for that, which is what is now occurring, he should pay a commercial rate of interest based on what the capital market brings.

My point is that it seems to me that our first concern ought to be to work out a banking system which can quote a rate of interest which will take the business. If that rate happens to be a nominal one for something which isn't going to make any profit, then that is the rate to quote. If it happens to be, let us say, a 1- or 1½- or 2-percent rate for the middle-class or lower-middle-class housing which is not being built by anybody today, then quote that rate. If it happens to be a commercial enterprise, making the standard commercial profit which can pay a standard commercial rate, then quote that rate. For after all, what is this money that we are using? It is the creation by a bank-

ing system of currency under a Federal license, and the only reason for quoting any interest rate at all is to induce the bank to function.

Now, of course, that does cut down the profit in banking. There is no question about that. But on the other hand I am by no means clear why a bank should feel that it had to have a tremendous profit on its capital to induce it to perform what is essentially a public function. The Federal Reserve banks, for instance, have operated nicely on a 6-percent profit, the balance over going to the Federal Treasury, and I would like to note that the most successful financial institutions in the United States, not manned by Socialists or by New Dealers or otherwise, are not run for profit at all. The large mutual insurance companies don't have the profit motive. The officers, of course, collect pay, and so forth, but there is no stockholder to collect a profit.

The mutual savings banks in New York State and New England which have been successful do not collect any profit. You do not need a profit system to energize a perfectly successful banking system, and that is not worked out by any radical. That has been worked out over many, many years in these United States.

I don't mean to say that the bank ought to run at a loss. The profit system is really an index of whether the bank is well run, but you do not need, it seems to me, to have your interest rate so calculated that on a relatively narrow margin of capital the interest rate will funnel down to and accrue to the bank stock as dividends.

This may mean that you have to work out a new division in the banking system to handle capital matters, so adjusted that it is expected to pay its expenses, a nominal return on its capital, but that its interest rate is regarded not as a method by which somebody makes some money, but a method by which you control the operation, lowering it when you want more work done, raising it when you don't want it done, exactly as the Federal Reserve banks do with their commercial banking rates designed to cover the short term credit field.

I pause for a moment to say that I don't honestly believe that much of the talk you hear about the closure of the capital markets has very much justification. I suppose as in most of these arguments that we hear, there is something in all of it, because I have rarely seen the question that didn't have two sides, but I don't honestly think that either the present tax system or the supposed lack of harmony with the Government, or the antitrust moves, or even the forums and investigations and so forth which harass businessmen—I think, myself, those could be simplified considerably—I doubt if those actually prevent a man who sees a profit from going after it.

I do think that there are great areas that are barred from the capital markets, and I do think that there is a great area of initiative, particularly in the public and semipublic field, that now finds no way of getting into action. I recall in that last field that we ourselves in New York have made a very real attempt to get capital to enter the middle class-housing field and we offered all the inducements we could through the city government machinery to do it, and we were unable to do it because a real-estate owner and a builder would figure out at what rate of return he could do the job. If he had to pay 4½ percent for his money, and unless he could get 4½ percent-plus back, he simply could not do it, and as nobody stepped up and offered to lend him the money at 1 or 1½ or 2—and we couldn't do it—the work simply wasn't done.

Further, we couldn't do it ourselves because our own money cost us from 3½ to 4 percent, running down finally to 3, so we couldn't move in the matter; and here you had a tremendous job that needed to be done, that ought to be done; that there were men anxious to do; that there were materials laying around ready to do, and no way of uniting the three. There were the initiative of the men who were prepared to do it—all of the makings; the obvious need—nobody objecting to it; everybody realizing that it had to be done, and no way of getting into action.

And I was recalling that I had discussed this with one of my friends from overseas, and he had said in view of that situation, "The time will come in your country when if you want to do a thing that you know ought to be done, to say you haven't the money for it will merely be a comic remark. You have all the money in the world, whenever you want to use it. Where we come from," said he, "we say, 'Have we the men and have we the materials?' Because if we don't have those we can't move.

"But it is time that you learned at least to handle your monetary system so that that is never an obstacle, provided you know exactly what you want to do."

Coping with this situation, it seems to me that the time has come now to recognize frankly what we haven't been willing to recognize before, and that is that our banking system ought to handle a considerable part of this capital business, and that it ought to be so organized that anyone with a legitimate job to do has access to a bank somewhere prepared to supply him the capital at a rate of interest which will actually get the business done, the bank naturally scrutinizing it to make sure that the thing he is doing is an actual creation of wealth.

I do not here go into a long technical discussion as to why I do not believe that will result in inflation. I think Professor Hansen has discussed that very briefly earlier, but I am not worried about an inflation in this country because, as far as I am able to see, you cannot get inflation in any event until your productive machinery is working at or near capacity, and we are a long, long way from that.

Further, in the past 20 years, when we began to get too much currency, and a change in the price level because of that fact, we have learned the trick now of hauling in so that you do not get prices deranged. I think that anyone on the Federal Reserve Board could tell you the various measures which were necessary to prevent any danger on that score.

I may further say that if you were going to get inflation you would have had it before now, for what actually is happening is that we are doing capital credit banking at this minute by a roundabout and highly inefficient route. What happens now is that men are idle, and materials are idle, and somebody wants to do something. Nobody can move. Accordingly there is pressure on the Government. The Government then starts a P. W. A. program, or something of that kind. It thereupon issues its own bonds, which are sold to the banks, the banks thoughtfully writing up deposits for that purpose. That puts currency in the control of the United States Government, which thereupon is advanced to the local unit for the P. W. A. construction unit, as the case may be, and what we really have done is filtered a job through the Budget of the United States that ought to have been done

in the first instance by the banking system without reference to the United States.

We have accumulated, naturally, as a result of that a considerable number of assets in the United States Government which are now able, in large measure, to finance under their own steam; the Tennessee Valley Authority, for example, is one. In a sense those expenditures never belonged in the United States Government Budget. They do belong exactly as the United States Steel bonds we were looking at awhile ago, in the banking and institutional system, where they could have been just as well, once people get accustomed to the idea.

INCREASING CREDIT FACILITIES AVAILABLE TO SMALL BUSINESS MAN

Mr. BERLE. That is still more true of the work of the local government units, like Knoxville, Tenn., and New York City, and Birmingham, Ala., and so forth. In addition to that, the institution should be so handled that an individual who has an idea and wants a small amount of capital ought to be able to go some place where he can get exactly the same consideration which Steel or General Electric can get, from J. P. Morgan—pardon me, Morgan, Stanley it is today; or from the Guaranty Trust Co. in New York. There is no reason why when the small man goes and says, "I have a small business and I need capital," everybody should tell him, "I am sorry, we only make commercial loans, this isn't a commercial loan, we can't help you build an addition to your plant. You will have to go find a partner, probably you can't find a partner, but that is too bad."

They ought to be prepared to take care of them on the same basis that they can take care of the city of Knoxville, at a lower rate of interest, perhaps, or the very operation of steel itself if steel was to go to this kind of system.

There are, of course, certain safeguards. We are not manufacturing credit for the pleasure of manufacturing credit. We are manufacturing it to organize men and materials to get wealth actually created—wealth which it seems to be agreed ought to be brought into existence. And for that reason, we ought to evolve a banking system which is trained, among other things, to make sure that the job which they do is well done. If somebody wants capital for a pyramid inflation, he ought to be turned down. If, on the other hand, he wants capital to construct something that is actually useful, a tangible addition to the plant of the country, he ought to be encouraged, and that is the kind of test which the bank ought to apply.

The bank does it today, but again it does it by the roundabout route. The bank holds up its right hand and swears it never supplies capital. That is not quite true because they have just begun to make the middle term capital loans. But what the bank actually will do, saying it will never consent, is that it goes around the corner and buys a high-grade bond in the New York Stock Exchange or from somebody else whenever it gets a chance, which is an awfully good way of doing the thing by indirection, and arranging to see that it is done only for a very small group of very well established companies, while the bulk of the work in the country, and scattered geographically over the country, goes unattended.

For that reason, it seems to me that we have now not only to reshift our banking system, but reeducate our bankers. I am inclined to

believe that now is not the time to try to lay out a particular scheme for how this ought to be done. I conceive it could be done in any of several ways. It could be done by forming capital credit banks as subsidiaries of the Federal Reserve banks, for instance. Or it could be done by forming a separate set of Government banks; or it could be done by offering a particular type of charter available to private individuals who wish to go into that field of banking at a limited return. Or conceivably it could be done by arranging separate and segregated divisions in the existing private commercial banks.

I do not know that we need here to undertake to say which of those things is the best possible way. I submit that it ought to be studied, and studied with some care.

### PROPOSAL FOR CREATION OF CAPITAL BANKS WITH FEDERAL CREDIT FOR PUBLIC WORKS

Mr. BERLE. In conclusion, let me say briefly this: Believing as I do that this is the most crucial single question before the country now, I hope this committee will see its way clear to stimulating some more or less immediate action on the subject. I think that two matters could be done at once, and one can be taken up for immediate study. I do not think that the time you have is very long. I think, first, that those assets of the Government, which are now revenue-producing and have tangible assets and tangible income, ought to be given a place where they can go, and where they can be financed without reference to the Federal Budget, so that we do not have this distorted Federal Budget which looks as though it were a great deal larger than it is because it includes a lot of items that really don't belong there.

I should think that might take the form of a public works finance corporation which had the ability to purchase bonds of such concerns as the Tennessee Valley, if need be rediscount them with the Federal Reserve, and get these enterprises away on their own autonomous steam. You will notice that the Federal Government in its Budget, the Treasury has already segregated those enterprises so that we now have them separately set up and listed in the Budget, and I see no reason why now they might not be expected to take their own part in the normal economic functioning of the community. But I do think that you have to provide a way by which that can be done.

That at least begins to get started on that line. If you did decide to do that, I feel that those same facilities could properly be made available to the local government units, which likewise have need to do a great deal of construction and which are constantly under pressure. What actually happens now is that they run up to the limit of their credit and interest paying capacity, and then they come to the Congress of the United States asking the Congress of the United States to give them a grant. Now I believe that you can work out a method, particularly if you are prepared to adopt the theory of a selective or low interest rate, by which they can perform that economic function without reference to the Budget and subject to the control which is necessary, the control of the Federal Reserve Board, to make sure that the currency doesn't get out of order. And that, I think, is the first thing that could be done, and I think that could be done now.

Second, and as an interim measure, I think that you could work out an insurance scheme which will permit the small-business man access to a bank by which he can get capital. I understand that there is such a bill in preparation, of which I have seen only an outline, the theory being that by insuring a small-business loan, the small-business man can get consideration at the banks which he does not get now. I believe that that probably would be only an interim measure, for if there were a final overhauling of the banking system, the time would come when he ought not to need that, but until we do reset the banking system so that he has as clean cut an avenue to American finance as the larger corporation, I think he can fairly ask the Government to give him some help via an insurance of his loan up to a given amount.

Third, I think that the whole problem of resetting capital credit banking ought to be the subject of a special study in the hope that it might be reported rapidly to the Congress of the United States, preferably at the next session. Just as many years ago we studied and finally put into effect the Federal Reserve System, which on the whole has worked surprisingly well—not surprisingly well, extremely well—and thereby modernized our commercial banking mechanism, taking care of the short term loan and the flow of current goods, it seems that now we ought to do the same thing, working out a system pari passu which will take care of capital loans and capital business, and I believe if a special subcommittee of this committee could be set up, asked to study that specifically and asked to report a bill or set of bills to the next Congress, that we should then be fairly well along to financial retooling.

And finally, let me say, all we have been discussing this afternoon are tools. Money is not the thing that makes the world go, nor even business go. You have to have it and it is indispensable, but it can fairly be asked of the National Government that it apply banking and credit so that anyone who has an idea can go ahead and put that idea into effect, but of course behind that there has to be a set of drive and initiative of all kinds which actually induces men to try to put their ideas into effect. That initiative we have. It is sometimes private, looking for profit. It is sometimes professional, looking to development of an art. It is sometimes social, as when the city of New York or the city of Chicago wants to go ahead and put in a new hospital system, and it is sometimes something in between, as where a man is quite prepared to go ahead and construct low cost housing, provided he can get his money back with a modicum of return.

At the moment we happen to have a system which taps only the extreme upper fourth of that range of initiative, that range in which a man sees a profit, wants it and is prepared to go after it. We have that tremendous range in the lower two-thirds, not one-third but two-thirds of the population for which now very little work is being done, although they want it and we want it, because it is not prepared to pay twice over through the interest rate for everything that has to be done.

My feeling is that if you do provide the tools, the initiative will be there, and be there very swiftly. I am obliged to you for your kindly courtesy.

Mr. NEHEMKIS. Mr. Berle, I should like to offer into evidence a memorandum which you have prepared for this committee. Accordingly, I ask you to identify it and if you will, read the title thereof. I show you the document.

Mr. BERLE. Memorandum, a Banking System for Capital and Capital Credit. This is a far more exact statement, I think, of what I have had to say than all the testimony could be.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence a memorandum identified by the witness.

The CHAIRMAN. The memorandum may be received.

(The memorandum referred to was marked "Exhibit No. 620" and is included in the appendix on p. 4066.)

The CHAIRMAN. Are there any questions?

Senator BORAH. Mr. Berle, you spoke about the mutual banking system to the extent to which it had been a success?

Mr. BERLE. Yes.

Senator BORAH. To what extent do you think it could be extended to cover a national banking system?

Mr. BERLE. I think it could be extended pretty far, Senator. I don't know whether you would want to extend it to the system as a whole, or to individual units of the system. The Federal Reserve banks themselves come pretty close to being in that capacity, and as you know they have been extremely successful. In other words, I do not see why you should not have a capital credit bank or for that matter a commercial bank on a mutualized basis. In fact, I suppose in those cases where by the accident of the catastrophe of 1933 the Reconstruction Finance Corporation would end up by owning all, or mostly all, of the stock of the bank, you get something very close to that now.

I have also seen the experiment in New York of what is called the savings banks trust company, which is a corporative trust company run by the 137 savings banks in New York, which is a highly successful institution, though it limits its functions severely because it is designed to take care of their needs. I see no reason why that principle should not be carried out. I don't know what the stockholders of the bank really contribute to the bank other than their initial capital. It seem to me that the banks, like other large industrial enterprises, are autonomous and self governing. They are as good as their directors and their president, and I don't know that it makes a great deal of difference in the functioning of the banking system as a whole whether they pay 6 percent on their shares or 150 percent on their shares.

The CHAIRMAN. Are there any other questions? Mr. Berle, with respect to this first recommendation of yours, for a bill creating public works finance corporation, with a suitably guarded rediscount privilege at the Federal Reserve bank. A system which you describe as intended to include both Federal public works and State and municipal public works; was it your thought that such a system should be confined to what we have called self liquidating projects?

Mr. BERLE. Initially, yes. As a matter of fact, wholly yes; because, whether a project is self-liquidating or not depends on what rate of interest it has to pay. I don't mean there are enterprises which can pay out the principal at a nominal charge; there are other enterprises which can pay out the principal and a rate of interest—

of a higher rate of interest, and some which can pay out full rate of interest. If you had such an institution which could control its rate of interest, you would vastly increase the number of so-called self-liquidating loans.

The CHAIRMAN. Now a reclamation project in the West, for example financed by the Federal Government through appropriations out of the reclamation fund, is repaid by the water charges paid by the users of the water and by the charges paid by users of electric power when electric-power projects are established in connection with reclamation. That is a wholly self liquidating project when the returns are made on the schedule. On the other hand, a hospital in the city of New York might not be self-liquidating at all, particularly if it were a free clinic. Do you see any distinction between the two types?

Mr. BERLE. No; I see a distinction in how they ought to be paid. The reclamation project, of course, is a typical capital project for this kind of thing, and the hospital in the city of New York. The payment would have to come from the city of New York itself by its own local taxation. What we do now is to borrow the money on a 30-year bond and pay 3 and a fraction percent interest, which means we pay for that hospital twice. In this case we should only have to pay for it, let us say, a little over once.

The CHAIRMAN. In other words, this institution which you propose to set up would extend the credit to the city of New York and then the city, through its taxing power, would repay to this agency the capital sum plus, perhaps, a service charge.

Mr. BERLE. That is right. That is the way I should like to see it done; yes, Senator. That may be a little bit radical according to certain of the standard banking ideas, but I think it is sound.

The CHAIRMAN. The distinction is clear between a public project which actually produces income and a public project which merely provides service to the public.

Mr. BERLE. Well, I am not too clear that it is scientifically, Senator. We have two bridges in New York, one of them the George Washington Bridge, which collects a toll, which is regarded as a magnificent investment, everybody says that is wealth. Across the island the other one is the Brooklyn Bridge, which is a free bridge, and everybody says it is a dead loss. The only real difference is that in one case it is paid for by the piece, whereas in the Brooklyn Bridge we all pay for it. Both of them create wealth because I suppose that the value of New York real estate and the amount of business done is directly due to both bridges. If New York City is prepared to collect that generally and pay for it, I would say they were creating wealth.

The CHAIRMAN. There would be a distinction, perhaps, in two hospitals, for example, in the city of New York, one a private institution which charged a high rate of rental for the rooms and for services, which would be a profitable private enterprise, and side by side with it a hospital which charged nothing to those who used it, but was paid for out of taxes, would not be in any sense a self-liquidating project; so they could be regarded as falling into different categories.

Mr. BERLE. Financially, as the present custom goes, they can, Senator, you are right. Of course, where you have a group that is pre-

pared to pay for it no matter how, I mean a group outside of the Federal Government and Federal taxation, I think we should treat that as though it were a loan available for the bank.

The CHAIRMAN. The difference between the Brooklyn Bridge and the George Washington Bridge is that the city of New York apparently chose to pay for the Brooklyn Bridge out of taxes and chose to pay for the George Washington Bridge through the instrumentality of the port authority by way of toll charges.

Mr. BERLE. That is right.

The CHAIRMAN. Your second suggestion was for insured loans to small business on the order of the Federal Housing Administration.

Mr. BERLE. That is right.

The CHAIRMAN. That, however, I understood you to recommend as merely a temporary interim system which would be abandoned if and when the third project was set up.

Mr. BERLE. I think that could be reserved for future discussion if, as, and when you got at the third project. Until there is a third project, plainly there is a place for the second. How you set up the third project, of course, might determine whether it could then be merged into it or abandoned altogether. Really, if the businessman is entitled to credit, there ought to be a place where he can get it. Because our system doesn't work that way now, he comes to us and says, "Because you haven't been clever enough to set up that kind of credit system, you ought to help me get the credit," and so we do.

The CHAIRMAN. But both of these are devices for the purpose of facilitating capital loans which are not now handled by the commercial banks.

Mr. BERLE. More accurately, which the commercial banks say they do not handle, though actually they do really without knowing it sometimes.

The CHAIRMAN. I noticed that statement that you gave in your oral testimony, but your illustration was the purchase of the bonds of large industrial corporations.

Mr. BERLE. They don't purchase any capital securities of any small-business man. That is quite true. I merely made that point because if you checked up the list of the assets of the commercial banks, you would find that instead of having the majority of their assets in commercial loans, which they are supposed to do, you would find that a very, very large proportion of them, far larger than the commercial loans, were their actual holdings in securities, Government and private.

The CHAIRMAN. When you were discussing the growth of private placement of large industrial loans through insurance companies and the like, I understood you to say that you saw no reason why that would be a source of any danger to the general public interest.

Mr. BERLE. No; to the general structure, I don't.

If, instead of a man saving up his own money and trying to buy a bond in a market, he wants to save his money in an insurance company and let the insurance company buy the bond, and the insurance company is well run, I don't see that the ark of the covenant is violated, Senator. I can see that unless you watch it considerably, it may be that only the very strongest insurance companies will ever get a shot at the now extremely limited business of bonds.

One of the things that I should hope to do is, if you ever work out a capital credit banking system, that it will from time to time distribute the bonds that it holds, see that it wants to sell its portfolio, for instance, see that the smaller insurance companies and the outlying insurance companies that don't get a good break now get a fair chance to buy the securities they need.

The CHAIRMAN. Do you think there is any possibility that the growing self-sufficiency of the large corporations which control such a large percentage of all corporate assets and the growing concentration of savings through insurance premiums and the like in the large insurance corporations, and the private placement of these industrial loans, would have the inevitable effect of foreclosing the opportunity for the small business man and small enterprise and free independent enterprise to obtain financing unless by some such system as you have outlined here?

Mr. BERLE. Yes; I think it would. He is pretty well foreclosed now, but of course the ultimate result of a system like this is that he will be still further foreclosed.

I suppose it still is possible that a small enterprise with a very high credit could go ahead and place an entire issue with one insurance company or something of that kind, so that I can't say that it necessarily eliminates him, but he is so far out on the end of the limb now that something has to be done.

The CHAIRMAN. Some years ago you published your very notable book, written by yourself and Mr. Means,[1] telling the story of the tremendous concentration of corporate capital. Do you not see in the circumstances which have been described to this committee another step in that progressive concentration?

Mr. BERLE. Yes, Senator. The greatest single force in favor of concentration is that the large concern has access to the capital market indefinitely, whereas the small concern does not. They are virtually in a position where they can coin their own money. They can print stock and sell it. They can issue bonds and, indeed, with a far-flung type of operation the receipts that they take in are analogous to taxation, and they can keep that up forever.

Now, the small man can't do that, and by consequence he can never draw alongside.

Senator BORAH. It would be necessary, would it not, to in some way avoid that great concentration in order to reach the small man at all, even by the system which you have outlined, because it seems to me that so long as that concentration of power is there they will always have the means by which they will see that the small fellow doesn't get the benefit of the system?

Mr. BERLE. I think that is true, Senator, although that gets into another range of matters.

Senator BORAH. Yes; I understand that.

Mr. BERLE. I think that is one of the reasons why I have slanted to the idea that any new capital credit banking mechanism ought not to be tied in so closely to the capital mechanism that he is once more remitted to that same set of forces which now pretty much condemn him to never getting very far ahead.

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[1] The Modern Corporation and Private Property, Macmillan, 1933.

Senator BORAH. I understood you, in speaking of the question of public debt, to state that your view was that the question of public debt was not a dangerous proposition so long as wealth was created against that debt.

Mr. BERLE. That is right.

Senator BORAH. In other words, if a farmer had a $10,000 mortgage on his farm, if he should create wealth in the way of crops, and so forth, sufficient, it would be perfectly safe for him to have $10,000 more, perhaps, if the wealth was sufficient.

Mr. BERLE. If the result of the $10,000 more is going to add; yes.

Senator BORAH. But is it not true when you are dealing with it from a national standpoint you have to take into consideration the distribution of this wealth which you are supposed to create for the purpose of taking care of or avoiding the danger of increased national debt?

In other words, if the wealth is created but not satisfactorily distributed, it is still a danger, it would seem to me—I am simply making inquiry, not expressing an opinion—of the national debt, because the wealth is not sufficiently distributed among the great masses of the people.

Mr. BERLE. I think that is perfectly true, Senator. Of course, that would suggest that in steering the capital flow you steered it toward those needs where you were getting a distribution. One of the reasons why housing comes into these discussions so continuously is that that is automatic distribution. The small man who gets a house has it automatically distributed to him, and the local handling of that, of course, means that you have wages flowing in various directions.

When you get into the farm problem you have precisely the question that you raise.

Senator BORAH. You really never get away, in any of these systems for the bettering of the condition of the human family, from the proposition of a necessary distribution of the wealth of the country.

Mr. BERLE. Never, never. The hope was here that you might create avenues by which a great many men who ought to be in that distributive process because they want to work and do things in their home towns, and so forth, can get at it. They would be glad to, and the question is to see if we can't put tools in their hands so that they can. The best distribution system is a system which distributes a great deal of work in a great many places, so that there are a great many people who are working and drawing their pay for it, and they can therefore consume.

The CHAIRMAN. And the distribution is to individual natural persons, not to institutions.

Mr. BERLE. That is exactly the point. The object of a system is to take care of your people, and that is the only reason. And the only object of a banking system is to put tools in the hands of everybody who has need of that process, and that is the only reason for its existence.

The CHAIRMAN. And as you have developed your story with respect to the national debt and the expenditures of government, I understood you to point out that that has necessarily compelled the Government to go beyond what has ordinarily been regarded as the function of government.

Government does not normally produce wealth to offset borrowings.

Mr. BERLE. I would qualify that slightly, Senator. Government always produces wealth, because there are certain kinds of wealth which are normally recognized as a function of government—roads, for instance.

### FUNCTION OF GOVERNMENT IN ECONOMIC LIFE

The CHAIRMAN. Of course, there was a time when that was not regarded as a function of government.

Mr. BERLE. Historically, practically every function that the Government now performs was once private. The post office, for instance, was originally in Europe a monopoly of a famous princely family called the House of Thurn und Taxis, and there was a terrific row when it was translated into a government function. Roads were originally toll affairs, and so on. The Government slowly and historically does tend to extend its functions, and it extends them more rapidly when there is a concentration of population in more than one place. The city of New York is half Socialist. It has to be. I don't mean it has the mentality of a Socialist state; it is because it can't work it out in any other way, but it is true that when the rest of the system doesn't work out and the Government has to take over, Government has had to extend its functions in directions which previously it had not done. Part of that is legitimate because there were Government functions that had not been performed, and part of it is accidental because the work had to be done, the Government had to push into that field.

The CHAIRMAN. The self-sufficient industrial corporation of which we have been speaking, with thousands of stockholders and thousands of employees, is, in effect, a sort of private government, is it not?

Mr. BERLE. It comes to that, and as a matter of fact if every stockholder were wiped out you would still have it moving right along under its own steam.

The CHAIRMAN. But we have not yet discovered how to cause these private governments to operate in such a manner as to provide for the distribution of wealth to the large number of individual flesh and blood persons who are without employment, and that is the cause, is it not, of the intervention of Government to do the job which our economic system itself is not doing?

Mr. BERLE. That is right.

The CHAIRMAN. The system which you are outlining here would be directed not so much as to strengthen Government as an agency to create wealth, as to provide a means of enabling the individual man to govern his own economic destiny.

Mr. BERLE. That is the whole story, Senator. In a democratic economy the object ought to be to provide tools so that everybody can provide for himself. The Government will always have to provide for some people, I suppose, of course, but the object is to fix it so that everyone is a part of our economic civilization, and has access himself to tools if he has the brains and the ability and the industry to want to use them.

The CHAIRMAN. We have established a government in this country which was intended to be a government to serve the people; a govern-

ment of the people, and it is your theory that it should be maintained as such and that we should not permit the economic system to develop organizational entities which overshadow the individual economic freedom of the individual person?

Mr. BERLE. Yes; I think the economic system is our servant and not our master, or, rather, ought to be. In olden days when there was infinite free land the individual could always be taken care of by throwing him at another undeveloped frontier. Now we have to throw him at a still expanding industrial system which only serves the upper third of the population, and we are trying really to find ways and means by which we can use all the initiative, so that any group anywhere that has some ideas and something that needs to be done can go ahead and serve themselves. That is what this is about.

The CHAIRMAN. I very much appreciate your statement.

Mr. FRANK. May I ask a minor question of mechanism? In connection with the banks that you suggest, in your proposed loans with flexible interest rates, would it be within the purview of your scheme that there might possibly be employed something like the English railway mortgages—loans—to wit, without maturity?

Mr. BERLE. I think that you ought to be able to use all ranges. If you wanted to provide virtually the equivalent of equity capital without the problem of control by the bank or by the Government, then a perpetual loan conceivably might be one of several devices to that end which you could use. After all, the object of a bank is not to go on and reaccumulate power itself; the object of it is to distribute the enterprise and the power, and that might be a way of doing it.

I did not want to try to get this afternoon into the various devices. We could do that, but that is a long job. There are an infinity of financial tools which could be used, and I think any system of banking of this sort ought to have the full use of all of them.

The CHAIRMAN. Mr. Ballinger?

Mr. BALLINGER. Mr. Berle, I agree with you that the small-business man should have access to capital, but I want to ask you if that is sufficient. For instance, at the Federal Trade Commission I have seen instances of two or three or four businessmen getting access to capital. It was rather difficult for them to get that capital but they managed to get it. After they got access to this capital however, they could only get to going a little way before they were put out of business by a predatory business practice.

In other words, just giving a businessman capital is not going to get him going. You have to have some enforcement of rules of fair competition, don't you, and these rules have to be very vigorously enforced?

Mr. BERLE. Yes; I agree with that entirely; that is a different branch of this subject. We were talking only about financial tools this afternoon, you are perfectly right.

Mr. BALLINGER. Well, now, if you are going to start this public works program, I want to ask if you would start it under existing conditions. For instance, you wouldn't want this project to buy its cement from the cement trust; its steel from the basing-point industry; its gypsum from the gypsum trust; its wallboard from the wallboard trust, would you. You would want to break these trusts up, wouldn't you, in order to make the program more effective

Mr. BERLE. Yes: I don't speak with respect to these particular industries, because I would have to analyze with some care in each case what they are really doing. If you mean that nobody wants to use this kind of thing merely to build up other people's monopolies, of course I agree with you. In each particular case—I don't think that the problem is a single whole; in each case you are dealing with a specific set of circumstances and unless I knew what you were talking about I couldn't answer the question intelligently. Generally you want to use this to distribute rather than concentrate; of course that is true.

Mr. BALLINGER. In other words, don't you think a public-works program should be financed at as low a cost as possible? If your public-works projects are going to have to deal with monopolies for their supply of building materials, they are going to be constructed at as high a cost as possible, aren't they?

Mr. BERLE. I should assume so; yes.

Mr. BALLINGER. Also I want to ask you this question about your public-works program. Of course, a great many economists believe that the solution to our ills is a public works program. But what has always puzzled me is why we can never produce enough of such more fundamental forms of wealth as food, clothes, and shelter. If we can't produce enough food, clothes, and shelter for the American people, why should we be diverting our labor supply to building more roads and parks? In other words, if it were put up to the average man, I think he would rather have more food than more roads, and more clothes than more parks, and perhaps even more shelter than more hospitalization. If we produced in this country enough food, clothes, and shelter to give every American citizen a minimum standard of living, I think there would be no unemployment in the world of private business and that a big public-works program would be unnecessary. So long as we will not locate and cure the causes of unemployment in the world of private business which is engaged in creating food, clothes, and shelter, it seems to me that those who are advocating a public works program are ducking the real issue. We should not be thinking about how to create new forms of wealth so as to absorb the unemployed, but rather about why our production of old and existing forms of wealth creates unemployment though our production of these old existing, and I believe more fundamental forms of wealth have never been adequate for the needs of the American people.

Mr. BERLE. There is one difficulty to that. I agree with you but the object is not merely to get consumers' goods into his hands. You need—there are two elements in this. When you are dealing with the individual worker, one is that you want to see that he has what he needs; the other is that you want to see that he actually works and contributes to civilization in order to get it, and he needs that quite as much as he needs his pay. You ask anybody who has just been told that he is fired, retired, and on a perfectly adequate pension, and see whether he likes it or not. Usually he feels as though he had fallen off three stories and lit on a brick walk. In a sense we need quite as much to make demands of our people as we do to make presents to them; perhaps even more. For that reason what you want is a method by which you get all these people actually contributing to

civilization, so that then they are a part of it and thereby get the necessary consumptive goods.

Mr. BALLINGER. I have always wondered why he falls off the pay roll, considering the fact that we don't have enough of food, clothes, and shelter in America. In other words, I don't understand why the energies of the private business world don't properly expand so as to prevent him from falling off the pay roll, or at least to let him fall off only briefly. Of course, if we are not going to find out why the world of private business, underproducing as it is, doesn't keep him on the pay roll, it is perhaps right and just to put him on a public works program. But the great wonderment to me has always been why he can't stay where he is. Until we find the answer to this query, I have little faith in public-works programs. At best, they are only a poultice which may mitigate the pain of the cancer but in the long run will not cure the cancer.

Mr. BERLE. Well, you will get probably considerable unbalance. For instance, if you ran the automobile industry at full capacity continuously, it would not be very long before no automobile could move in any direction because there would be a solid line. The thing has to be graded step by step with the whole development. That is why conceivably if you were willing to go into a highly regimented civilization, which I for one do not advocate if it can be avoided, you could so grade your automobile production that you would merely have the necessary amount coming along step by step, but that gets you into pretty deep water the minute you start planning production; you find that you are also telling somebody what he ought to consume, and at this point you are getting outside the confines of what I conceive a democratic economy ought to be.

Mr. FRANK. There would have to be a few roads in order to have some automobiles, I assume.

Mr. BERLE. I won't go into that because I tried in an earlier memorandum, which I believe is not in evidence before this committee, to indicate that I thought that the motor industry was one of the most heavily subsidized industries in the United States though it didn't know it.

Mr. HENDERSON. You don't mean to indicate that memorandum was suppressed, Dr. Berle.

Mr. BERLE. Oh, no; you know more about that than I do, Leon.

Mr. NEHEMKIS. I should like to direct a question to Mr. Berle. Mr. Berle, you spoke of the new type of banking system which through selective interest rates could create credit. Would not this new banking system which you have suggested also tap savings?

Mr. BERLE. Yes.

Mr. NEHEMKIS. And thus provide an outlet for this idle money which is troubling us.

Mr. BERLE. It should be able to do both things. When it is dealing in those noncommercial areas where there is not what you might call a standard interest charge, it then ought to be in a position to create credit. Where, however, it happens to be providing capital for a group of people who are perfectly able, ready, and willing to pay a standard interest charge, there is no reason why, having got those bonds, it should not then resell them wherever there is a necessary outlet for savings and thereby reestablish its revolving fund. Further, if the time should come when we begin to run up into an

overplus of capacity, into an overactivity which has happened in the United States, as it did 10 years ago, it might then run up its interest rates and begin to tap savings without creating credit with a view to slowing down the process a little.

Mr. BALLINGER. As I understood you, Mr. Berle, investment bankers are becoming more and more reduced to brokerage functions because of the growth of large scale enterprise. The market is more or less closed, and they don't have to go out and look for customers, and so their business is receding a little bit.

Mr. BERLE. Not a little bit; a very great deal.

Mr. BALLINGER. And yesterday I listened to testimony about the sufficiency of our large corporations who are becoming emancipated from banks.

Mr. BERLE. That is right.

Mr. BALLINGER. I hope these interests will notice that because maybe then we can get some help. Big business is putting certain very powerful groups out of business.

Mr. BERLE. May I say this, Mr. Ballinger, the alleged domination of what is called big business by the banking system, as I see it, today is now largely sentimental. It really is a hold over. In the older days when they had continuously to go to this group for their credit and their capital, of course, those two were closely tied together. This is now the second generation, and it is largely due to the personal connections that were established. I really should question whether it would survive another generation. Steel or telephone or any of those large corporations could declare their complete independence of all Wall Street tomorrow afternoon if they felt like it, and I take it that the reasons are largely personal that they don't. They don't need Wall Street. Wall Street needs them now a great deal more. In other words, the baby has grown up.

Representative REECE. Henry Ford emancipated himself sometime ago, didn't he?

Mr. BERLE. I don't think he ever had to, sir, if I recall correctly. The Ford plant was entirely done by internal financing right from the beginning or from after the first very small loan and a couple of partners. My impression is that they never did get into that ambit, and I believe Mr. Ford has been heard to say that he never proposes to.

The CHAIRMAN. Are there any other questions? Mr. Berle, we are very grateful to you for a very interesting discussion.

Mr. BERLE. I am obliged to you for your kind courtesy.

Mr. NEHEMKIS. I take it we proceed tomorrow morning, sir?

The CHAIRMAN. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon, at 4:10 p. m., a recess was taken until Wednesday, May 24, 1939, at 10:30 a. m.)

# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

WEDNESDAY, MAY 24, 1939

UNITED STATES SENATE.
TEMPORARY NATIONAL ECONOMIC COMMITTEE.
*Washington, D. C.*

The committee met at 10:45 a. m., pursuant to adjournment on Tuesday, May 23, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senators O'Mahoney (chairman) and King; Representative Reece; Messrs Henderson, O'Connell, and Brackett.

Present also: Senator James M. Mead, of New York; Ernest S. Meyers, Department of Justice; and Peter R. Nehemkis, Jr., special counsel, Investment Banking Section, Securities and Exchange Commission.

The CHAIRMAN. The committee will please come to order. Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. Yes, sir. May it please the committee, I should like to introduce one or two exhibits which have not heretofore been introduced.

I think in the interest of time I will wait and call Dr. Hansen first, if you please. Dr. Hansen has already been sworn. May he proceed?

The CHAIRMAN. He may proceed.

Mr. NEHEMKIS. We have had considerable discussion, Mr. Chairman and gentlemen of the committee, with the problem of capital expenditures. Mr. Dennison, Mr. Berle, and Dr. Hansen in his earlier testimony all referred to that problem, so it seems proper this morning, and orderly, that Dr. Hansen should discuss the problem of what a rational budget, a rational capital budget for the Federal Government, should consist of and should look like. I therefore call Dr. Alvin Hansen.

The CHAIRMAN. These are Dr. Hansen's personal ideas as to what a rational budget should look like?

Senator KING. Is that for individuals, the States, or the Nation?

Mr. NEHEMKIS. It is for the Federal Government, sir.

Senator KING. Does a rational budget for the Federal Government have any relation to a rational budget for an individual, or is it nebulous and can it mean anything?

Mr. NEHEMKIS. I think you will find it is rational, but whether it is the kind of budget I could operate on I don't know.

## TESTIMONY OF DR. ALVIN H. HANSEN, HARVARD UNIVERSITY, CAMBRIDGE, MASS.—RESUMED

Dr. HANSEN. Mr. Chairman, and members of the committee, in the testimony which I presented to the committee on May 16, I stated the

problem of full employment and a high national income in the following terms.[1] I called attention to the fact about which there can be, I think, no controversy. The flow of income springs from two sources, consumption expenditures and outlays on capital or investment goods, equipment, plant and residential construction, and public construction. I called attention to the fact that the essentially dynamic source of the income stream is the outlay on expansion of plant and equipment, and on new residential and public construction.

I noted that as the outlays on investment goods of this sort rise, as employment in these capital goods industries increase, consumption expenditures also rise. That money spent in investment goods is high-powered money in the respect that its effect is magnified by reason of the induced consumption to which it gives rise.

I called attention to the fact that in a high saving, high investment economy such as ours, you cannot get full employment without large capital outlays, whether private or public. The gap between consumption expenditures and the full income level attainable under conditions of full employment can be filled in one of three ways. First, it may be filled with private capital outlays in expansion of plant and equipment, commercial manufacturing, mining, railroad, or public utility, and on private residential construction.

Second, it may be filled with public investment in self liquidating or non self liquidating public projects directly or indirectly productive and contributing to a higher standard of living.

Third, it may be filled by adding to private-consumption expenditures a wide variety of community consumption in the form of social services, public health, public recreation, low cost housing, and the like, thereby developing a high consumption economy. I noted moreover, that public investment may be financed partly from borrowing, especially for self-liquidating projects, and even at times for non self liquidating projects. Whether or not borrowing is the most appropriate economic policy depends in part upon the prevailing state of employment.

A part of public investment outlays may appropriately be paid from taxes, especially taxes which do not weigh heavily on consumption. Community consumption expenditures of the character to which I have referred ought especially to be paid for out of taxes which bear lightly on consumption. Vast capital outlays on private plant and equipment and on residential building were necessary in the rapidly expanding economy. A less rapidly expanding economy with a slower rate of population growth requires a smaller outlay on expansion of plant and equipment.

This is all the more true because a highly developed industrial system with a vast amount of plant and equipment can introduce techniques and improve and modernize its productive facilities through replacements and renewals. Evidence has been presented to this committee which shows that depreciation allowances finance under under modern conditions by far the major part of gross capital outlays. A less rapidly expanding economy, in order to achieve full employment of its resources, will probably need to rely more largely in the future than in the past (1) on public investment as a supple

[1] For Dr. Hansen's previous testimony see supra, pp. 3495–3520, 3538–3559.

ment to private investment; and (2) on community consumption expenditures as a supplemental to private consumption expenditures.

In his testimony to the committee yesterday Mr. Berle called attention to the historical trend in this direction, and I quote two sentences:[1]

As development of a country progresses, I think—

he said,

it will be found on careful examination that there is an increased need for wealth of the nonprofit type. The advance in technical, demographic, and cultural development of the country has apparently brought to the fore recognized social needs with greater rapidity than heretofore. Many, perhaps most, of these social needs cannot be handled on a price per unit basis. Their cost must be paid by the community at large, yet the productive functions of the community are better off for their existence. They therefore become the logical field for public capital financing.

To sum up, there are three roads to full employment: (1) Private capital outlays; (2) public investment; and (3) community consumption.

In the current decade of chronic unemployment, the Federal Government has been compelled to supplement both private investment and the public investment of State and local governments with large capital outlays. A part of this was composed of loans to private enterprise, banks, railroads, and so forth, a part consisted of grants to local governments, a part was composed of self liquidating public projects, a part of other forms of public works, and a part of more or less direct relief of unemployment.

### THE DOUBLE BUDGET—INCREASING IMPORTANCE OF EXPENDITURES FOR INVESTMENT IN THE TOTAL OUTLAY OF THE FEDERAL GOVERNMENT

Dr. HANSEN. These developments have enormously complicated our Federal budgetary set-up. The larger role which the Government has played, and, in my judgment, is likely to play in the years ahead, with respect to public investment as a supplement to private investment, calls for a reexamination of our budgetary procedure. It is my purpose to discuss very briefly the problem of budgetary procedure with special reference to the question of a capital or investment budget. Let me say at once that I am not suggesting the adoption at this time of any plan of double budgeting. It is a problem which requires first of all study and careful consideration. It is not a matter into which we can afford to rush blindly until we have made a thoroughgoing and exhaustive inquiry into the whole subject. I am raising the problem solely in the hope that such an inquiry will be made in the near future.

Let me say here that I approach this problem as a student of the business cycle in its relation to fiscal policy. I am not an accountant and am not competent to discuss the details of accounting procedure. I approach the problem from the standpoint of general policy. It is my view that the Government ought to call the foremost public accountants in the country to Washington to assist in making a thorough examination of Federal accounting practice. It is a highly technical job that requires technical experts.

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[1] See "Exhibit No. 620," appendix, p. 4066 at p. 4070.

The question of the appropriate classification of public expenditures is an important one. There has been much discussion and widely divergent practice in different countries with respect to this matter. Expenditures have sometimes been divided into ordinary and extraordinary, and again into operating expenditures and capital exepnditures. Most commonly all expenditures of whatever kind have been included within a single or unitary budget. Some countries have, however, used a double budget, including an operating budget and a capital or investment budget.

### TYPES OF PUBLIC DEBT

Dr. HANSEN. The nonrecurring expenditures, that is to say outlays for capital projects and expenditures incurred by reason of war or other public disaster, have customarily been financed in part from loans. Thus our own State and local governments during the decade of the twenties borrowed about $1,000,000,000 per year for capital outlays on roads, schools, and other public improvements. War has always in modern times been financed in large part from loans. Debt incurred by reason of these nonrecurring outlays may be divided into three types: (1) Dead-weight debt, (2) passive debt, and (3) active debt.

Dead-weight debt is one which is incurred in consequence of expenditures which in no way increase the productive power of the community, yielding neither a money revenue nor a future flow of benefits. The most conspicuous type of public debt thus incurred is, of course, that arising from war expenditures.

Passive public debt is one incurred for expenditures which, while yielding benefits to the community, such as public buildings, public parks, and the like, do not return a money income.

An active debt is one incurred in consequence of (1) capital expenditures on projects which are self liquidating; and (2) expenditures on projects which indirectly increase the productive power of the community, such as expenditures on public health or education designed to raise the efficiency of the people, or expenditures on energy on other natural resources designed to increase the productivity of the Nation.

The CHAIRMAN. Let me interrupt you in order to make note of the fact that the committee is honored by the presence of Senator Mead, of New York, author of one of the bills now pending before Congress to provide for a system of loans to little business, as he has phrased the matter.

Proceed.

Dr. HANSEN. Frequently it is difficult to know into what category to place debt incurred for certain expenditures. Thus, good public roads in part increase the physical productivity of the country and in part merely add to our enjoyment. Debt incurred for public roads is thus in part active debt and in part passive debt.

Historically, public debts in most countries have been mainly of the dead-weight type. England's national debt must be placed almost wholly in this category.

Mr. HENDERSON. I missed that.

Dr. HANSEN. England's national debt must be placed almost wholly in the dead-weight category.

Sweden is a notable exception to this rule. Sweden's debt is balanced by productive assets. Indeed, in some recent years the net income from state enterprises has been approximately twice as large as the interest on the public debt. The public debt of France is another notable example of dead-weight debt. The same is true with respect to the origin, at any rate, of most of the Federal debt in the United States. Since 1930 the United States has incurred a large public debt, a considerable part of which must be placed in the dead-weight category, springing not indeed from war expenditures but from the necessity of offering relief to the unemployed. I am speaking here of that part which did not materialize in durable public improvements that went into direct relief.

The question has often been raised whether the dead-weight debt of a country ought or ought not to be retired. To this I think it is not possible to give an unqualified answer. Under certain conditions it will not be economically desirable to retire dead-weight debt. Under other conditions debt may wisely be retired. Indeed, I think in the whole area of economic policy it is very rarely possible to give an unequivocal answer to any question. You must always consider the concrete conditions involved and make an answer in terms of those concrete conditions. There are no general formulas that can be applied with respect to economic policy.

Under certain conditions, it will not be economically desirable to retire dead-weight debt. Under other conditions, debt may wisely be retired. England retired very little of her huge Napoleonic war debt. It seems to me clear that this proved to be a wise policy. Drastic retirement of this huge debt, particularly in view of the tax structure then current in England, would have restricted consumption and would probably have been detrimental to her economic development.

The United States, on the other hand, in the post-war decade, retired about 10 billions of the debt incurred in the World War. Under the conditions prevailing in the twenties, this was, it is generally agreed, a wise procedure. The question whether or not dead-weight debt should be retired depends, therefore, mainly upon the prevailing state of the economy and in part upon the character of the taxes employed. If the debt is retired by means of taxes which bear mainly on the savings stream, the economy will be little disturbed, especially if it is experiencing an investment boom. If, however, an economy is experiencing chronic unemployment, debt retirement would probably aggravate the situation.

These considerations lead to an examination of the most appropriate method of accounting for different types of expenditures. It is with this problem that various forms of budget systems are concerned. Under a true double budget system, current or operating expenditures are accounted for in an operating budget. Outlays for capital projects are accounted for in a capital or investment budget.

### THE BUDGET AND TAXATION

Dr. HANSEN. First let us consider the operating budget in a double-budget set-up. It is necessary to note at once that under conditions of fairly wide fluctuations in income and employment such as modern countries undergo it is virtually impossible to cover even the regular operating expenditures of the Government with adequate tax

receipts in the depression years of the cycle. This fact is due to two causes. On the one side, the modern tax system is heavily composed of taxes which are highly sensitive to the cycle. This is especially true of the individual income tax, the corporate income tax, and the customs duties. The receipts from these taxes fluctuate widely with the cycle, rising to high levels in boom years and falling to low levels in depression years.

On the other side, under modern conditions, certain expenditures of government, notably relief of unemployment, unavoidably increase in depression years. Thus we experience, not merely highly fluctuating revenues correlated directly with the cycle but also fluctuating expenditures correlated inversely with the cycle. The combined effect of these two diverse movements is to magnify the divergent movement of expenditures and tax receipts in the operating budget. If the tax structure is set sufficiently high so that tax receipts cover the total expenditures in the operating budget over an entire cycle, these diverse movements will produce a surplus of tax receipts over expenditures in the boom years and a deficit of tax receipts in relation to expenditures in the depression years.

The regular operating functions of government should be adequately covered by tax receipts over the cycle period. To do so, however, requires careful planning and considerable flexibility with respect to tax-rate adjustments. On the expenditure side many of the regular expenditures will go on from year to year, disturbed but little if at all, by prosperity or depression. These are the regular expenditures growing out of the ordinary functions of government. But relief expenditures, if not otherwise provided for outside of the budget, must also be regarded in modern times as a normal function of government and one which it must face in every period when unemployment on a large scale prevails. It is an item of expenditure which it is difficult to regularize, but even here it is possible to go a considerable distance toward regularization through the development of unemployment insurance and other social security measures. By means of these special measures the load of outright relief can in large measure be provided for outside of the Government Budget, thereby reducing the magnitude of the fluctuation of expenditures. Thus England, because of a well-developed system of unemployment and old-age insurance, was able to meet the relief needs of the depression with relatively small governmental support. Comparison with our own situation in the great depression must, of course, take cognizance of the great depth of our depression and the correspondingly greater need. I think the fact that we did not have adequate machinery already going to take care of a large volume of unemployment relief explains, in a very large measure, the degree of chaos, so to speak, which has existed in our Federal finances in the last 10 years.

From this experience it seems to me it is necessary to learn a lesson and in future to provide regular machinery which, in very large part, will take care of relief expenditures outside of the Budget and that in itself will assist in great measure in developing systematic and sound Federal budgetary practice.

Senator KING. Doctor, if I may interrupt you. Do you think, then, that the insurance which was provided by Great Britain and Germany met the situation? Don't you know—isn't it a fact that the amount

which they had—the taxes which they levied for that purpose amounted to several billion—or several hundred million pounds and was utterly inadequate, and they had to exhaust the entire fund, and then resort to further grants from the Government in Germany, and from the Government in Great Britain?

Dr. HANSEN. In England the system which was already going, a going concern, took care of the problem in very large measure. It did not break down, Senator; it is true that the Federal Government—it is true that the National Government in England had to supplement the machinery, the unemployment—the employment system, by aid from the Treasury. I only said, Senator, in my statement, that the fact that Great Britain had a well developed system of unemployment and old age insurance meant that the load placed upon the treasury was very much minimized. I did not say that there was no load on the national treasury.

Senator KING. Well, the fact was that in Great Britain as well as in Germany the funds were exhausted and there had to be large grants from the treasury, and in Germany, because of the lean condition in the treasury, it was impossible for them to make the necessary grants in order to supplement the needs, to meet the requirements under the system which they had set up.

Dr. HANSEN. But through the years the funds coming into the unemployment insurance system in England again built up its finances, and while there was a drain and exhaustion of funds in the early years of the depression, it has been built up in recent years, so that it certainly is not true, in my judgment, that the system broke down. There was a period in which the unemployment insurance fund went into a debt and again it recovered its position in large measure as recovery developed in England.

It was a very big factor in my judgment, Senator, in providing for relief outside of the national budget. It was not wholly adequate.

Senator KING. I didn't intend to say it broke down; it depends upon the connotation you attribute to the words "break down," but it did break down to the extent that in Germany they had no funds at all; they were entirely exhausted, and for a considerable length of time there was a very inadequate appropriation made to meet the legal demands upon the fund.

Dr. HANSEN. In Germany, Senator, as I recall it—I may be wrong—the system was not introduced until 1927. It was not a going concern. It had not had a sufficient basis of experience or accumulation in good years to really call it a going concern. The depression hit Germany in 1929. Moreover, the conditions in Germany, even in those years, from 1927 to 1929, were by no means healthy, prosperous conditions; I don't think you can say the German system was really a going unemployment-insurance system.

Mr. NEHEMKIS. Dr. Hansen, is it a fact that the unemployment system of Great Britain was introduced during the premiership of David Lloyd George?

Dr. HANSEN. The unemployment-insurance system; yes; but that covered——

Mr. NEHEMKIS. What year was that?

Dr. HANSEN. Just before the war; I forget the exact year; I think it was 1911 or 1912, but that covered in those years only the more

violently fluctuating industries and did not cover the whole of the economy. The act was greatly extended in the post-war period.

Mr. NEHEMKIS. But it is a fact, is it not, Dr. Hansen, that the whole relief unemployment system was in existence for many years prior or for some years prior to the time when the depression made its effect upon Great Britain?

Dr. HANSEN. Yes; it had been a going concern pretty much for the entire economy for about a decade before the great depression came.

Mr. NEHEMKIS. And when you speak of that system having been a going concern, you mean it was in operation for at least a decade?

Dr. HANSEN. Yes. However, let me say that they were continually amending the act.

Senator KING. Supplementing the appropriations?

Dr. HANSEN. Particularly in the decade of chronic unemployment of the twenties they were having difficult conditions, but I do think that, nevertheless, the system was of great aid to them also in that period. They underwent a series of amendments which gradually had the effect of separating out what may properly be called relief from unemployment-insurance problems.

At first I think there was a confusion with respect to those two aspects, which is partly responsible for the fact that the system did not function as well as it might have in the decade of the twenties.

Mr. NEHEMKIS. Will you proceed, sir, unless the Senator desires to question further?

Mr. HENDERSON. I had a question myself, having to do with this country. As I gathered, your point was that if we had had in effect here an established system of insurances and social payments of various kinds, that probably the magnitude of our drop—that is, the enormous decline—would have been considerably minimized?

Dr. HANSEN. That wasn't the point, Mr. Henderson, I made, though I think that is probably true. The point that I made was that the whole method of financing relief would have disturbed our Federal Budget less if we had had outside of the Federal Budget a going system which provided in its own autonomous budget, so to speak (let us say, an unemployment insurance system) for unemployment relief.

Senator KING. In considering that, the observation which you have made, did you take into account the fact that before we set up the present unemployment insurance policy many of the large corporations, partnerships which employed hundreds of thousands of individuals, had a system of relief or unemployment insurance which guaranteed to the employees a considerably larger amount than they are obtaining now under the Federal system?

Dr. HANSEN. It covered, however, Senator, a very, very small percentage of the total employed in the country.[1] I forget the percentage now; it was a very, very small percentage.

Senator KING. It was a rather large percentage. We had the matter up, I will say, before the Finance Committee and there was a great deal of opposition by a large number of employees who were the beneficiaries or would be the beneficiaries of the private employment-fund system to the Federal system. They opposed being taken out of the private system and transferred to the Federal system.

[1] See survey of unemployment benefit plans in the United States, Bulletin of the U. S. Bureau of Labor Statistics No. 544, July 1931.

Dr. HANSEN. The record introduced into the hearings at the time of the unemployment insurance indicates, I do not recall, precisely what that percent is; I would not like to state it now, because my memory doesn't serve me; but I do know it was a very small percent.

Senator KING. It was not such a small percent of those who were employed in the large corporations and in the manufacturing and mining.

Dr. HANSEN. Yes; also in manufacturing and mining.

Senator KING. Of course, if you take into account the farmers and agriculturists.

Dr. HANSEN. The present act doesn't cover them anyway.

Senator KING. I know it does not.

Dr. HANSEN. In manufacturing also, Senator, I am certain the fact is that the percentage was a very small one, but I wouldn't dare to say what it was at this moment.

Senator KING. Both of us are guessing.

Dr. HANSEN. That is right. It can easily be verified.

Senator KING. I had the figure in my mind during the hearings, but I don't recall them now.

Dr. HANSEN. Thus, while the expenditures in the operating budget can in large measure be regularized, it is nevertheless impossible to strike a year-by-year balance, owing to the fluctuations in tax receipts in various phases of the cycle, but it is necessary that the level of tax receipts shall be high enough to balance the expenditures in the operating budget over the entire cycle period. Obviously, the failure to bring about a balance of receipts and expenditures in every single year in achieving a cyclical balance involves deficits in the operating budget in some years, and surpluses in others.

Thus temporary loan financing is necessary, even in the case of the operating budget. It is important, however, that care should be taken to amortize such loans very rapidly in order to insure a balanced operating budget over the entire cycle. In order to facilitate this, Sweden has devised a system of amortization within 5 years of debt incurred to cover temporary deficits in the operating budget.

It is possible that a better plan would be to use a varying amortizaotion rate, longer periods for the deficits incurred early in the depression, shorter periods for deficits incurred late in the depression, and still shorter ones for those incurred in the first phase of the recovery. At all events, in order to ensure a cyclical balance of the operating budget, rapid amortization of such temporary loans should be provided.

Some adjustment of tax rates to the cycle movement may be desirable as a compensatory measure. On balance it may be suggested that taxes which bear mainly on the savings stream may without damage to the economy be raised in the boom days of the cycle. This is true because high rates on incomes flowing largely into savings will simply take funds from the savings stream and, through the debt-redemption process, place these same funds back again in the savings stream. This assumes that people owning the retired bonds will wish to reinvest the sums received. Taxes bearing mainly on the savings stream rather than on consumption, and used for debt retirement, would therefore have neither an inflationary or deflationary effect. Such a procedure would leave the savings stream intact and would be neutral in its effects on the cycle movement.

On the other hand, it might also prove desirable under certain conditions to fluctuate the rates on consumption taxes, raising them in the boom and lowering them in depression. The increase of consumption taxes in the boom will, however, tend to be deflationary in its effect and should therefore be resorted to only in the event that the boom is proceeding at a pace which makes it desirable to hold it in check.

Mr. Henderson. I understood from your previous testimony, Dr. Hansen, that we were to follow exactly the reverse on taxes bearing on consumption in this country, and that there was almost a 300-percent increase in the taxes which you call consumption taxes.[1]

Dr. Hansen. Yes, sir. In the event that the recovery lacks vigor, an increase in consumption taxes would be unfortunate, since this procedure would tend to dampen the recovery. That is the point you just referred to.

So much for the operating budget which involves the regular current expenses. I turn now to the nonrecurring expenditures on major capital projects, whether self liquidating or not. Nonrecurring expenditures incurred by reason of war or other major public disaster, I shall not consider since these involve special problems of financing with which here we are not primarily concerned.

### BUDGETING PUBLIC INVESTMENT—THE DANISH SYSTEM

Dr. Hansen. Under a fully developed double budget system, the operating budget must include as a part of its regular expenditures the depreciation, amortization, write-offs, and interest charges incidental to the capital outlays accounted for in the capital or investment budget. The interrelation between the operating budget in a double budget system and the capital or investment budget can perhaps best be illustrated by reference to the Danish budgetary set-up. Denmark's budgetary system inaugurated in 1927 offers the most logically consistent example of governmental accounting in the form of two separate but interrelated statements: (1) The operating budget, and (2) the capital or investment budget. No distinction is made between self-liquidating and non-income-yielding capital outlays. Durability, not profitability, is the criterion applied. Capital outlays on durable or capital goods are financed by (1) inheritance taxes under the Danish system, (2) borrowing, and (3) amortization or depreciation allowances transferred to the capital budget from the operating budget. These are the sources out of which funds are derived for capital outlays.

Self liquidating capital projects are of course expected to earn an income adequate to cover the operating expenses of the project and also interest and depreciation charges. In the event that losses are sustained, these are carried by the operating budget. Non-income-yielding assets on the other hand, since they earn no income directly, must look to the Government's operating budget for income to cover not only expenses of operation, but also interest and depreciation charges. Thus each branch of the government—I am speaking of the Danish system—for example, a state hospital or a state university—must include in its expenditure estimate not merely the usual operating expenses, but also an amount sufficient to cover interest and

[1] See supra, p. 3544.

depreciation on its plant. These expense items entered in the government's operating budget are, of course, defrayed from general tax revenues. Thus the operating budget carried the interest and depreciation charges originating in the capital or investment budget.

The Danish public accounting procedure is fully developed to include all state properties, and it is therefore possible to present annually a statement of the national debt and net cost minus depreciation of the national properties. And since a part of the capital outlays are finances from inheritance taxes, the net cost minus depreciation of the national properties should exceed the debt obligations.

This aspect of the matter is, however, in my judgment of relatively little significance. Indeed, it may well be argued that at any rate with respect to non self liquidating projects, there is no legitimate warrant for setting up a balance sheet of assets, so called, against liabilities since these assets, so-called, yield no income. The analogy, it seems to me, to private business is a false one. The important matter, however, with respect to the Danish procedure is that for every capital outlay financed by borrowing, depreciation or amortization charges are assessed against the operating budget, so that within the lifetime of the capital project, funds derived from tax revenues are made available either for replacement or debt retirement. Thus with respect to every capital project the Danish budget system is designed to insure that within a reasonable period tax receipts have been collected adequate to amortize the loan incurred for the capital outlay or to provide funds for a new capital project.

The operating budget is continually in balance if its tax receipts are adequate to cover, in addition to expenses of operation, depreciation or amortization and interest charges. But the initial capital outlay is thrown into a capital or investment budget and is not loaded onto the operating budget.

### BUDGETING PUBLIC INVESTMENT—THE SWEDISH SYSTEM

Dr. HANSEN. In the case of Sweden, the capital budget system grew naturally out of the fact that the Swedish state had for many decades past owned important state enterprises, including the railroads, bus lines, telegraph and telephone systems, large electric-power plants, iron-ore reserves and forests, together with such factories and shops as are closely related to the operation of these projects. Thus the state derived revenue not only from taxes, customs, and excises, but also from the net income from the state productive funds, including the tobacco monopoly, the iron-ore company, the post office, telegraphs, railways, waterworks, and public domain. Capital budgetary accounting also applies in Sweden to income yielding projects which are not wholly self sustaining, as for example, low-cost housing projects, and the new Swedish budget recently proposed plans to extend the principle, following the Danish example, to non-income-yielding public works, such as public buildings. It is proposed to do this piecemeal, as and when separate government agencies or authorities can effectively be set up to manage certain capital projects. As an example, the public roads might be placed under a government authority for the purpose of more efficient management and operating under its own autonomous budget. The public roads authority

might, of course, have assigned to it a part or all of the gasoline taxes, which would make it in a sense more or less self sustaining.

The capital or investment budget in Sweden applies mainly to income-yielding state enterprises. This is the simplest and clearest illustration of the capital budget principle. In Denmark the principle has a more general application.

With respect to our own country, the Swedish principle is particularly applicable to the various governmental corporations and crediting agencies, and to self liquidating capital projects. How far, if at all, the capital budget principle could be usefully extended to non-income yielding public works is a matter requiring further study. Before we embark upon any general program of capital budgeting, an exhaustive study should be made of the subject, including adequate time for public education, so that the country will understand and accept as valid the principles involved in the new procedure.

### USE OF PUBLIC CORPORATIONS BY FEDERAL GOVERNMENT

Dr. Hansen. The time is ripe for such an inquiry. We have already been stumbling piecemeal in the direction of a double budget system. With respect to the Commodity Credit Corporation, its capital stock of $100,000,000 is held by the United States. It is authorized to issue its own obligations, guaranteed by the United States, in an aggregate amount of $500,000,000. Under an act of Congress, March 8, 1938, the Secretary of the Treasury is required to make an appraisal of all assets and liabilities of the Corporation as of the 31st of March in each year, for the purpose of determining its net worth. If the net worth is below $100,000,000, the Secretary is required, subject to appropriation of funds therefor, to restore such capital impairment. In the event that the net worth exceeds $100,000,000, the excess must be deposited by the Corporation in the United States Treasury. Thus the Budget of the Federal Government is not affected by any debt which the Corporation incurs in pursuit of its loaning operations, but only in the event that a loss or surplus occurs in any fiscal year. Other governmental corporations and credit agencies are outside of the Government Budget in the sense that they are empowered to obtain funds by the sale of their own securities in the market. Such securities are usually fully guaranteed as to principal and interest by the United States. Most of these corporations are making loans or engaging in activities which are expected to be wholly or mainly self-liquidating.

Senator King. You don't refer to the Home Owners' Loan, do you, where there was a loss of perhaps $100,000,000?

Dr. Hansen. It varies in different groups. There are certain areas in which clearly there have been losses.

Senator King. There have been losses there. They have advanced $100,000,000 and the Secretary of the Treasury was automatically required to replenish the funds.

Dr. Hansen. That is right, I referred to that, Senator.

Senator King. But you didn't refer to it as indicating losses.

Dr. Hansen. I referred to the fact that you now mention, that the Secretary has to make good such losses. In one important case, that of the United States Housing Authority, the loans made to local agencies for low cost housing are only to a very limited extent self-

liquidating, since the rents received will not be sufficient to cover interest and amortization charges. These therefore must be carried in whole or in part by the Government Budget.

Senator KING. They will be treated as losses, will they not?

Dr. HANSEN. That is right.

Senator KING. And you have to tax the American people in order to meet the losses.

Dr. HANSEN. That is exactly the point I am making. These developments indicate that we are already moving, but without any systematic program, in the direction of a capital or investment budget. Yet the capital budget principle finds, strictly speaking, no recognition as yet in our Government's own Budget. This is true because we still count the Government's investment in the governmental corporations and credit agencies as operating expense. In a true double budget system the Government's investment in the subsidiary corporations and credit agencies would be charged to the capital budget. In view of the tendencies indicated above, however, the time has clearly come when a thoroughgoing reexamination of our budgetary procedure is called for.

Mr. O'CONNELL. Did I understand you to say that the loans made by the United States Housing Authority to local agents are to all intents and purposes not self liquidating?

Senator KING. That is true; he said it.

Dr. HANSEN. In large part they are not self liquidating because as I understand it the rents received on these low-coast housing projects will not at all be adequate to cover interest and amortization charges.

Mr. O'CONNELL. That is true, but it seems that what they do comes fairly close to what you are proposing because the loans made by U. S. H. A. are repaid and the Federal Government makes an annual contribution out of its current——

Dr. HANSEN (interposing). That is right, but that annual contribution is in the nature of covering losses that are sustained in the project.

Mr. O'CONNELL. That is true, but isn't the procedure that U. S. H. A. follows, that is the loan which is a capital loan and an annual contribution which is carried in the regular budget, substantially the sort of system you advocate for that type of thing?

Dr. HANSEN. It is substantially the system I have referred to in Denmark and Sweden, that is correct.

Senator KING. Isn't it true with reference to that organization to which reference has been made that the Government has to pay out every year some 35 or 65 million dollars anticipating interest?

Dr. HANSEN. I don't recall the exact figures but the principle you state is correct.

Senator KING. So there is a direct loss that must be paid by taxing the American people.

Dr. HANSEN. That is true.

Senator KING. It isn't a self liquidating project at all.

Dr. HANSEN. That is right, that is the point I make. It is in part, because you do get some rents but they are not adequate to cover the interest and amortization.

Mr. O'CONNELL. The amount of contributions has a direct relation to the amount of capital loans made by the United States Housing Authority and I wasn't intending to indicate the whole transaction

was one that was self liquidating from the point of view of the Federal Government but merely attempting to indicate that my understanding was that the loss, if you want to call it that, to the Federal Government, is one that is carried in the regular Budget.

Dr. HANSEN. That is correct.

Senator KING. My recollection is that the Government ultimately will be required to pay between 700 million and a billion dollars, to say nothing of the interest upon those several payments extending over a long period of time.

Dr. HANSEN. That, I may say, Senator, is exactly the procedure in Sweden and also in England, where they have engaged in subsidized low cost housing on a very large scale the last two decades. Indeed, as I remember, the average number of family units built in that manner have amounted to something around 50,000 a year over the last 2 decades. That is financed in precisely the manner, in general at any rate, in which our United States Housing Authority is set up. In fact, insofar as I know, it is, in general, the measure being used in all western European countries in the very large low cost housing projects which they have engaged in.

Mr. HENDERSON. If the proposal which Dr. Berle made yesterday as to interest rates and as to the use of credit for capital purposes and public construction were employed in the United States Housing Administration, the interest rate would probably be a very, very low one, a nominal one, and in that case the Government's contribution each year, which is, in fact, underwriting the interest payments, would not be necessary, would it? I am not asking for qualitative opinion of the Berle proposal, but doesn't this get pretty tangible in terms of the Berle proposal?

Dr. HANSEN. I am not convinced, Mr. Henderson, that Mr. Berle's plan, which is extremely interesting and suggestive, is a very practical one; but I do think that we can do more than we have in the way of getting rates of interest down in areas where it is really important to have rates of interest down. I don't think we have adequately tried out the method of stimulating recovery by adequately low rates of interest in the fields which are important, as, for instance, housing I referred to that in my testimony a week ago.

Mr. HENDERSON. As I gather, what you are saying in your comment on that is, you are not sure that it would be possible to tap credit for use in capital construction to an extent where there would be only a nominal rate, but that as compared with the rates that are being employed, say, under the U. S. H. A. and other institutions of its kind there could be a considerable reduction. Were there a reduction in interest rates, the Government's contribution would be less and there would probably be a great deal of acceleration in capital formation through that means.

Dr. HANSEN. Yes; I think one job we definitely have to tackle in this country—and one that we should have tackled a long time ago—is the problem of getting rates of interest down in areas where they really count. I may say that in the Scandinavian countries for 100 years through their governments, they have made available funds at low rates of interest to farmers and to housing projects and the like.

Mr. HENDERSON. There is a wide spread between the rate at which the Government borrows in this country and the rate of interest

harged on the obligations of such institutions as the U. S. H. A., nd the rate in these Scandinavian countries isn't there?

Dr. HANSEN. Yes; the rate is abnormally high in our country even ow, after 10 years of chronic unemployment and a considerable mount of idle funds.

Mr. O'CONNELL. There is quite a difference between the rate at hich a local housing authority, for example, may obtain funds to nstruct a public housing project and the rate at which a private orrower would be able to obtain money on a U. S. H. A. loan. The . S. H. A. loan rate would be only a little over 3 percent at the esent rate, because their rate of interest is not less than one-half 1 percent less than the going rate of Federal interest, and such tes have been at 3, 3¼, and not more than 4 percent, and I think e F. H. A. rate is about 5½.

Dr. HANSEN. I was referring a moment ago to strictly private ancing, which I think is abnormally high. I do think we have approach the low rate of interest in that area gradually because takes time to develop sources of funds at lower rates of interest. ou can't suddenly introduce a low rate of interest quite out of line th the customary rate, and I think that probably our policy has en wise in approaching the whole problem of lower rates under the deral Housing Administration on an experimental basis, and adually getting down to lower rates, but I think we have a major oblem to lower the rates there still more.

That would develop private financing and housing as against the nited States Housing Authority, which, of course, is publicly anced housing.

Senator KING. Without desiring to take issue, because I think if nderstand you correctly I am quite in accord with your view that should, so far as we can, consistent with proper business prac- es, encourage a reduction in the rate of interest, I call your atten- n to the fact that your rate of interest depends largely upon the mand for capital. During the twenties and forties and fifties and ties, and on down until the great war, there was a great demand r capital, interest rates were high, in many States from 6 to 10 rcent, and during those high interest rate periods the great de- lopment of our country took place. Railroads were built, houses re constructed and there was remarkable economic development in parts of the United States.

Dr. HANSEN. Not because the rate of interest was high, Senator, t because there was in that period a great expansionist movement nich made the rates high.

Senator KING. As I say, it depends upon the demand for capital, on the economic movement.

Dr. HANSEN. Not in the last decade, Senator. The rates have been normally high in view of the demand for funds.

Senator KING. I did not refer to the last decade. I referred to the riod where there was perhaps the greatest development that our ntry ever experienced.

Dr. HANSEN. Again I say not because rates were high but because e prospective rate of profit on the investment was high.

Senator KING. Have you taken into account in your conclusions, if u have drawn any conclusions from your statements and investiga- ns, the fact that we are quite different from a little community like

Sweden or like Denmark? Denmark has only 2 or 3 or 4 millions of people, right on two little islands and a little peninsula, homogeneous, nearly all farmers—dairying business and farmers—so that they are practically one family. Sweden is very much the same. They are homogeneous, they don't have the polyglot population we have, they don't have the problems we have, they don't have the great range of territory from ocean to ocean that we have, with millions of acres of land, so that it seems to me you ought to differentiate those countries from this country. Moreover, we have a dual form of government and there are obligations resting upon the States that are not upon the National Government, and States may do and might do and perhaps should do many things which they haven't done and which the Federal Government, under proper interpretations of the Constitution, does not have the authority to do. I wondered if you had taken into account, in your recommending any policy for us to pursue here, the fact that we have a dual form of government, that we have a great empire of territory, diverse in conditions from those in Denmark and Sweden.

Dr. HANSEN. I am not recommending any policy except to study this question. That is my only recommendation on this question and I do fully take cognizance of what you have said about the homogeneity and smallness of these countries. I think it makes a very great difference, but I don't think that that excuses us from trying to tackle our problems in as scientific and objective manner as possible, and I think we have very much to learn from these countries.

Mr. HENDERSON. As I gather, independent of any recommendations as to whether there should be an expansion or a contraction in Federal activities, the problem of proper accounting, scientific accounting as between capital and operating, is still an important one, and that is the thing to which you are asking us to direct our attention.

Dr. HANSEN. That is correct.

Mr. HENDERSON. Rather than to any decision on expansion or contraction.

### CAUTIONS ON USE OF A DOUBLE BUDGET

Dr. HANSEN. But I am suggesting even with respect to that only a careful inquiry into the subject.

Double budget accounting requires that the operating budget must carry year to year losses or write offs sustained by governmental corporations or subsidiaries together with depreciation and interest charges for non self-liquidating capital projects accounted for in the capital or investment budget. This procedure has the merit that it helps to insure a more adequate cost accounting than is likely to be the case when operating and capital expenditures are all lumped indiscriminately into a unitary general budget. Yet it is necessary to point out that there is not necessarily any advantage in this respect in the capital budget procedure. Under the unitary budget accurate accounting for depreciation could equally be provided if one set about doing it. Similarly a unitary budget could also provide for amortization charges. But as a matter of fact, amortization of debt incurred from capital outlays has not been the customary practice. Witness, for example, the loose procedure adopted

n many of our States under which no provision was made for lepreciation of public highways or for amortization of the debt ncurred. In the case of the unitary budget, governments have, o be sure, set up sinking funds. But this mechanism is only a eneral scheme for debt retirement and is not suitable for the amor- ization of debt incurred for specific projects or for the building up f depreciation reserves for renewals or replacement.

The double budget method, if it means anything at all, specifically nakes provision in the operating budget for depreciation or amor- ization charges springing from capital outlays accounted for in the apital or investment budget. This has the merit of setting forth learly what is the true cost of the annual services derived from the apital outlays. By forcing upon the operating budget the neces- ity of finding tax revenues adequate to cover amortization and in- erest charges it provides for a true balancing of the budget over he life span of the capital project. Had the States set up capital udgets for their public roads, there would probably have been im- osed a more accurate budgetary control over depreciation. Yet I ish to emphasize that there is no magic about the double budget. t is all a question as to which mechanism, the unitary budget sys- em or the double budget system, is likely to induce the most effective ccounting control.

There is nothing about the capital budget device, as such, which ill help automatically to determine whether or not a capital project hould be financed from current taxes or from borrowing. Whether country has a unitary budget or a double budget it will have to ecide on grounds of general economic policy which method of nancing is, under any given situation, to be preferred. The capital udget does, however, serve to emphasize that the budget is in fact alanced, properly speaking, if the tax revenues in the operating udget are adequate to cover the amortization and interest charges, ogether with operating expenses. The double budget procedure tresses the fact that the project is worth what it cost if the annual enefits derived are at least equal to the depreciation and interest harges in addition to expenses of operation. It stresses the fact hat a capital project is not consumed in the year in which it is con- tructed, that it is therefore not necessary from the standpoint of a ealistic budget balancing concept to pay for it out of taxes at the ime of construction unless indeed general economic policy, under the onditions then prevailing, justifies such procedure. It stresses the act that capital projects may under certain circumstances quite ap- ropriately be paid for year by year as its services are being con- umed, through tax revenues adequate to cover the annual capital harges. And on the other side, it stresses the fact that capital utlays ought not to be incurred unless the legislature is willing o raise sufficient new revenue to take care of amortization and nterest charges. Unless such provision is made, one does not know whether the capital outlays hold an appropriate relation to taxable ncome and taxable capacity. The double budget procedure there- ore serves to impose financial responsibility in the respect that every apital outlay involves loading the operating budget with interest nd depreciation charges. At the same time it provides a more ational basis upon which the responsible authorities may decide the uestion whether to finance the construction of a capital project from

taxes or from borrowing, on the real merits of the case—that is to say, on grounds of appropriate economic policy, taking into account the effect of taxes versus borrowing on the prevailing economic situation. In this connection it should be noted that borrowing may be the appropriate policy in the event that powerful deflationary forces are operating upon the economy. On the other hand, heavy taxation is called for in the event that undue inflationary tendencies are at work. The question of borrowing versus taxation must then be decided, among other matters, on the basis of appropriate policy with respect to the prevailing state of employment.

Let me suggest again in closing that I do not think we should undertake any new budgetary plan in haste, without exhaustive prior study and analysis.

Thank you.

Mr. NEHEMKIS. Mr. Chairman, in view of the fact that I desire to call another witness this morning, I would like to forego examining the witness, and make that time available to the committee for its questioning.

The CHAIRMAN. Do any members of the committee desire to interrogate Dr. Hansen?

The CHAIRMAN. Senator Mead, would you care to direct any questions to the witness?

Senator MEAD. Mr. Chairman, I am very much interested in the testimony given by the professor this morning, and in connection with his comparing our economy with the economies of other nations that have gone into the business of self liquidating or wealth producing projects on a larger scale than we have in this country.

The thought occurred to me that while we have not even scratched that field of public ownership, that we might assist the economy of the country by rehabilitating the railroads, we will say, through the aid of the Government. Now, in some of the countries that you mentioned, the rehabilitation of the railroads takes added impetus in times of unemployment and at that time they also inaugurated large public works programs in the general field of the utility operation, but we are limited because the utilities of the country and the railroads of the country and other enterprises of that character are not within the authority of the Government. But we all know that the railroads of the country are in need of improvement and equipment; they need modernization; they need new tracks; they need new equipment. What would you think, Professor, of the creation of a Government corporation along the lines of the corporation you mentioned, the Commodity Credit Corporation, for the restoration and rehabilitation of the railroads. This corporation could lease equipment to railroads; under certain conditions, it could sell equipment to railroads. It would prove an adequate defense measure. It would result in employment opportunities being provided, and it would prevent recurring railroad wrecks that, in my judgment, may happen unless their equipment is brought up to date.

Now, we don't own the roads, but what do you think about creating an agency of that character to aid the roads and at the same time aid the country?

Dr. HANSEN. I referred to it, sir, in my testimony a week ago in passing, as an illustration. I think it, again, is something that seems to me to be sound. It, again, requires study because it has a great

many angles connected with it, and in general I would be in agreement with what you say, so far as I understand the problem. But the whole railroad situation is a very complicated one, and it requires, again, study and inquiry to understand all of the various angles in such a project. But as far as I understand it, I should be in favor of such a proposal, and I referred to it in passing, as an illustration in my testimony a week ago.

Senator MEAD. Just another thought, and then I am through. For the last several years I have been making somewhat of a study of the capital needs of small business, as was mentioned by the distinguished chairman of this committee when he recognized my entrance—which I appreciate. Over a period of 3 or 4 years I have learned, or heard discussed, the problem of virtually thousands of our businessmen, and it occurs to me that due to the fact that the Congress will only be in session for about 6 weeks that we must do something before adjournment in order to adequately supply the needs of credit to small enterprise.

The CHAIRMAN. Are you making a promise about that 6 weeks?

Senator MEAD. Well, I have in mind, as the professor mentioned, varying conditions and circumstances; 6 weeks from now it will be quite warm here; 6 weeks from now the reorganization plans will be fully approved; 6 weeks from now I am very much afraid there will be a great demand on the part of heads of families to seek cooler climates. The war scare is over, so I make that as a prediction, that we will adjourn early in July.

The CHAIRMAN. Let the record show that Senator Mead qualifies his morning as a prophet.

Senator MEAD. And, professor, getting back to my question, the question of the credit needs of small enterprise is something that I believe will aid the economy because as enterprise has grown large, its new methods and new schemes of financing have developed, the character loans, the loans on inventories, the loans on orders, the loans to the little fellow that made successful enterprise in the years gone by, are outlawed today in many instances, under existing circumstances. The holding company, the investment bank, the share corporations, power of monopolies to finance themselves, and so on, has absolutely stalemated the development of the little-business man in his progress.

Therefore, I would like to have your suggestion with regard to the enactment of legislation that would permit the freer flow of capital to small enterprise.

Dr. HANSEN. I think very probably, sir, that one of the difficulties of small business is access to credit for the reason that large corporations do have an access to credit on a freer basis than is usually possible for the small business firm. I think, however, it is important that there be joined to the other policies looking toward the freest possible functioning of the price system so that these smaller businesses will not be fooled into simply borrowing money and then find that as a matter of fact other forces are at work which are going to make it impossible for them to succeed in a business way, and so I think this policy at any rate should be studied in conjunction with the whole policy that is before this committee, having to do with the whole system of free enterprise and competition.

The CHAIRMAN. In other words, loans, whether guaranteed or not, are, in your opinion, insufficient unless there is also provided a system which will free small business from other restrictive influences and hampering influences which are operating in our economy?

Dr. HANSEN. That is right, Senator. I think very frequently it is a danger to extend credit too much. You may create a situation which will be disastrous to small business if a credit situation were set up that was too liberal, in view of the genuine prospects of success that confront small business in the country.

Mr. HENDERSON. Your answer has to do, undoubtedly, with the liberality of credit, but would it not be true that one of the restraining influences on competition is the higher cost of credit?

Dr. HANSEN. Yes.

Mr. HENDERSON. To the small business man, assuming that——

Dr. HANSEN (interposing). That should be provided for.

Mr. HENDERSON (continuing). That you use proper standards of loan grants and extension of credit, a small enterprise would be in a much better position to engage in price competition with a larger enterprise if it could reduce that very, very high cost?

Dr. HANSEN. I think that is right.

Senator MEAD. I recognize, Professor Hansen, that the inadequate flow of credit is just one of the obstacles in the pathway of the little business man?

Dr. HANSEN. Yes.

Senator MEAD. But I said a while ago we are only going to be here for a short while, and don't you think it would be helpful to get rid of that one obstacle now and as soon as possible eliminate the other elements of our economy that will meet the progress of business?

Dr. HANSEN. I think that is right provided the whole system is set up in a manner which provides sound loans, sound in view of the real prospective prospects for new profitable investment in the area of the small business field.

The CHAIRMAN. Are there any other questions?

### THE FEDERAL DEBT

Mr. HENDERSON. I am very much interested, Dr. Hansen, in your classification of Government debt, of the nonrecurring order, that is into dead weight, passive and active. You spoke of the $10,000,000,000 reduction in the war debt during the twenties. First of all I gather that you would feel, from your later testimony, that probably exercised a proper influence in restraining the price level from any inflationary tendencies it might have had during the twenties?

Dr. HANSEN. It probably had some effect in that direction. I think the question—I discussed that briefly, Mr. Henderson—whether or not debt retirement really acts as a restrainer depends mainly upon the character of the taxes used. If the taxes are of such a character that they bear mainly on the savings stream, then it becomes—the retirement mechanism becomes a system by which you funnel out funds from the savings stream and put them right back into the savings stream, and the effect is neutral; but if the taxes are in part at any rate, bearing on consumption, then it has a restraining influence on the boom.

Otherwise, I think it does not have.

Mr. HENDERSON. How much of the dead-weight kind of debt of the war was left? Have you any idea?

Dr. HANSEN. In this country now?

Mr. HENDERSON. Yes.

Dr. HANSEN. Well, we had, if I recall rightly, only $2,000,000,000 of debt before we entered the great World War, so that the public debt reached a maximum, as I recall, of $26,000,000,000, did it not, after the war, and we retired about 10 billion; that would leave about 14 billion, subtracting the 2 billion we already had; about 14 billion of our public debt, which is of dead-weight character, springing from the World War.[1]

Mr. HENDERSON. Of the dead horse variety?

Dr. HANSEN. Further termed dead weight.

The CHAIRMAN. We had pretty good evidence of the fact that Europe does not retire the dead-weight debt?

Mr. HENDERSON. Now, there is no doubt, is there, that in the incurrence of debts since 1929 there were some which would come under the categories of passive and active?

Dr. HANSEN. That is correct.

Mr. HENDERSON. Have you any idea of how much? That is, have you made any calculations?

Dr. HANSEN. Well, certain calculations have been made, for example, calculations were made on a tentative basis in an article that appeared in Fortune, and calculations have been made——

Mr. HENDERSON. What were they? Do you have them there?

Dr. HANSEN. I have some figures here which I believe were, as I recall the figures—these are revisions of figures that were prepared by the National Resources Committee of the Fortune figure. I think there is inevitably a good wide margin of error in such estimates, and I don't know how accurate these estimates are, but they are substantially similar to the figures in the Fortune article.[2] A debt which represents what we may call active or passive debt in the years from 1931 to 1933, inclusive, about 11.7 billions of dollars, after deducting amortization on the new plant created and on the old Government plant also, and that the debt which may be represented as dead weight debt, going into direct relief, amounted to about 9.5 billions of dollars, so that it is roughly about 50–50; a little more than half according to these estimates passive and active debt, and a little less than half dead weight debt.

Again let me say I have not gone into these figures myself and I think there must always be—it is a very difficult thing to really determine what expenditures may really properly be put into Government plant, into durable projects.

Mr. HENDERSON. That classification is for the purpose of governmental accounting. I would gather from your previous testimony, however, that you would assume that this dead weight debt as it passed into the stream in the way of purchasing power was not a dead weight on recovery, was not a subtraction from recovery?

Dr. HANSEN. It might very well have—and I think did have—a stimulating effect on recovery. That, I think, is quite a different

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[1] See also table and chart "War Against Germany, Receipt and Disposal of Federal Funds, for the Total Fiscal Years 1917–21," which appear in the appendix, pp. 4150 and 4151.

[2] "Taxation and Recovery; Fortune Roundtable," Fortune, vol. 19, pp. 67–68, May 1939.

matter from the question as to whether or not you got anything in the way of durable improvements out of it which will render benefits to you over a great many years to come.

Mr. HENDERSON. That would not appear in the Government's account, but would appear in the national income?

Dr. HANSEN. That is correct.

Mr. HENDERSON. And, pretty generally, would you think those debts which were incurred did add to the national income during that period?

Dr. HANSEN. Yes; I should think so. There again, precisely what the effect is is an extremely difficult matter to determine.

Mr. HENDERSON. I am not asking what the multiplier might have been on that; you have made no attempt to gage as to what the multiplier is?

Dr. HANSEN. That is right.

Mr. HENDERSON. You would have at least a multiplier of one, would you not?

Dr. HANSEN. You would at least have a multiplier of one, unless it could be shown—which I do not think is reasonable to suppose—that these expenditures actually had a deflationary effect on private capital outlays.

Mr. HENDERSON. Could that happen in the kind of upward movement we were having at that time?

Dr. HANSEN. I don't think so. There are people who do think so. I myself don't think so.

Mr. HENDERSON. Have you any ideas, from such preliminary calculations as you have made, as to what the total value of all the Government property is?

Dr. HANSEN. No; I haven't gone into that matter.

Mr. HENDERSON. Do you think there is any good estimate at the present time?

Dr. HANSEN. I have seen estimates but I am not prepared to say how good or how bad they are.

Mr. HENDERSON. Isn't it true that practically no department of Government. including the Post Office, has any idea of what their capital assets are?

Dr. HANSEN. I think that is true.

Mr. NEHEMKIS. Mr. Commissioner, I want to offer at a later time a chart which, in part, is a preliminary experiment in answer to your question as to what our plant is.[1] I say preliminary; it is an experiment to endeavor to answer your question.

Mr. HENDERSON. I will consider that as a preliminary experiment in answer to my question.

The CHAIRMAN. Why an experiment?

Mr. NEHEMKIS. Well, if we had a vast organization that could take the time to study as Professor Hansen has urged, I think it would be more scientific, but we have done a preliminary estimate only and we would be happier if it were regarded in that light.

Mr. HENDERSON. Independent of these other questions, Dr. Hansen, in Sweden, which you detailed briefly as having a considerable income from state ownership of some of the public utilities and the like, there is still a large area of private enterprise, is there not?

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[1] See "Exhibit No. 625," appendix, p. 4090.

Dr. HANSEN. You mean in the public-utility area?

Mr. HENDERSON. Particularly in the industrial area.

Dr. HANSEN. There is a large area even in the public-utility area. Most of it is private.

Mr. HENDERSON. And they have been able to exist side by side?

Dr. HANSEN. Side by side. I remember distinctly hearing the Crown Prince of Sweden when he was in this country a year ago lecture on that subject, and he especially called attention to the fact that the public utility enterprise and the private public-utility enterprise had got along very well together.

Mr. HENDERSON. And they have quite a large area of activity which is under cooperative management, do they not?

Dr. HANSEN. Yes. I think that has been popularly exaggerated in America, but it is true that cooperative retail stores are very important in Sweden, as they are in England, and that these cooperative stores also own wholesale establishments and that they also own factories, and it is particularly true that in areas where they feel that monopolies are charging too high prices for products that they will and have established factories to produce just those commodities, and thereby break the monopoly price.

Mr. HENDERSON. I want to get you a bit off of that complete objectivity which you assumed a little earlier about the necessity for double bookkeeping. You are not just on an either/or basis on that, are you? As a matter of fact you are in favor of it, aren't you?

Dr. HANSEN. Yes; I personally think that it would be a wise procedure to develop a capital budget system, but I do think that it is extremely important not to go off in too great a hurry on any such project, and I think that my own judgment about it might be modified as a result of a more adequate study of the whole subject, but for the present moment I should think that it would improve our accounting practice.

The CHAIRMAN. Are there any other questions?

Dr. Hansen, we are very grateful to you.

Mr. NEHEMKIS. Mr. Chairman, I have the pleasure of calling as the next witness the Honorable Milo Perkins. Mr. Perkins, please.

Mr. Chairman, may it please the committee, Mr. Perkins is administratively responsible for the programs dealing with the purchase and disposal of surplus agricultural commodities. It is in this connection that he has been invited to appear before this committee.

The CHAIRMAN. Do you solemnly swear that the testimony which you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. PERKINS. I do.

## TESTIMONY OF HON. MILO PERKINS, PRESIDENT, FEDERAL SURPLUS COMMODITIES CORPORATION, WASHINGTON, D. C.

Mr. NEHEMKIS. Will you state your name and address, sir?

Mr. PERKINS. My name is Milo Perkins. My address, Federal Surplus Commodities Corporation.

Mr. NEHEMKIS. Would it be a correct statement, Mr. Perkins, that you have spent most of your life in the field of business and only relatively recently have entered the Government service? Prior to that

time you had been associated with the Bemis Bros. Bag Co., of Texas, and after that you were a partner in the King-Perkins Bag Co., of Texas?

Mr. PERKINS. Yes; that is true.

Mr. NEHEMKIS. What is your present position with the Government?

Mr. PERKINS. I am president of the Federal Surplus Commodities Corporation. I have worked for the Government for the last 4 years.

Mr. NEHEMKIS. Before I put any questions to you, Mr. Perkins, would you care to make a brief statement to the committee?

Mr. PERKINS. Well, I could, if the committee liked, make a brief statement with regard to the purchase of surplus commodities which it is our responsibility to handle, and perhaps that statement can be made in 5 or 6 minutes so that the committee might have an opportunity in an over-all way to see the nature of the program which you refer to, if that would be acceptable.

The CHAIRMAN. That will be quite all right.

(Representative Reece assumed the Chair.)

### WORK OF FEDERAL SURPLUS COMMODITY CORPORATION IN INCREASING VOLUME OF CONSUMPTION

Mr. PERKINS. The Federal Surplus Commodities Corporation is engaged, among other things, in the purchase of surplus agricultural commodities and their donation to States, the States in turn donating the commodities to the people who are on relief. This fiscal year we are going to spend about $65,000,000 for the purchase of surplus crops; these crops were bought primarily to help farm income. Wherever a very bad surplus occurs and the price falls we buy those crops with the purpose of improving farm income. The products so bought are donated to the States and the States in turn make them available to relief families, sometimes on a family basis, sometimes in school lunches, and sometimes to institutions like orphan asylums. The vast majority of the commodities are given to families. This past year, however, some 800,000 school children had their lunches supplemented with surplus foods which we gave to schools through the States in low-income areas, and a small proportion of them were given to institutions such as orphan asylums. In order to indicate the magnitude of the problem which the States are facing, there are now certified in the 48 States of the country some 3,700,000 families comprising 13,000,000 people; (and that, by the way, is an all-time peak,) who are eligible to receive surplus commodities as supplemental to their normal diets.

In the studies we have made of the amounts which families getting public assistance actually spend for food, we are rather amazed to find how closely it runs to a dollar a week. Almost throughout the country, although there are variations between the categories of people getting public assistance and some variations in different parts of the country, it is very interesting to observe how closely the expenditures of families getting public assistance for food run to $1 a week. That means 15 cents a day or 5 cents a meal, obviously, on 5 cents a meal people can't get enough to be healthy, and the farmers can't find a broad enough market for the products which they have to sell.

Our purchases of commodities are confined almost entirely to agricultural products for which there is a so called elastic demand, products like dairy products and fruits and vegetables, the consumption of which goes up and and down with industrial pay rolls. In very good times the surpluses do not exist, people have jobs and have enough money to buy the products. In very bad times the surpluses pack up on the farms; people who need dairy products and fruits and vegetables are unable to buy them, and so to a partial extent our program of purchasing these commodities helps farm income on the one hand, and it helps the diets of city folks who have an inadequate amount of money with which to buy these foods on the other hand.

That, very briefly, is a statement of the major part of our work in the Federal Surplus Commodities Corporation, but I would like to make the point in closing this preliminary statement that those of us who are administratively responsible for it look at it as a stopgap program. Nobody in America wants to look forward to a long pull of the Government having to buy surplus commodities on the one hand, and give them to people who are hungry on the other, but until such time as the log jam in investment is broken and people are able to get jobs and buy the foods which they want and which they need, we are trying to administer as efficiently as we can this program of buying surpluses, many of which would otherwise go to waste, and making them available to people who are undernourished and who need them and who, by eating the surplus, help to boost farm income.

Mr. Nehemkis. Mr. Perkins, in the light of what you have said, would it be possible to increase the consumption of cotton among low-income groups?

Mr. Perkins. We have recently completed a study on that, and it is the first time that these figures have ever been available so far as I know anywhere, and I should be very glad to file a tabulation—it is a preliminary tabulation—of those figures with the committee.

Mr. Nehemkis. I ask you to identify this document and read its title for me, if you will, please.

Mr. Perkins. The title of this table is Estimated Expenditure for Cotton Articles by Nonrelief Families.[1] The study was made between July of 1935 and June of 1936. It was made by a number of Government agencies working in cooperation with each other, and covered some 300,000 families. The tabulation indicates by income groups the amounts of money spent by families for cotton goods at the different income levels and the figures are, I think, extraordinarily interesting.

For example, nonrelief families getting less than $500 a year spent approximately one-eighth as much for cotton goods as families getting over $5,000 a year, and we worked yesterday morning in an effort to spell this thing out in terms of bales of cotton and money for the cotton itself were consumption of cotton goods brought up to something like a reasonable level, and we came to these conclusions: If everybody in the United States making less than the folks who get from 2 to 3 thousand dollars a year spent as much money on cotton goods as the folks who get an average of about 23 or 24 hundred dollars a year, it would add $500,000,000 a year to the income of

[1] See "Exhibit No. 621," appendix, p. 4079.

the cotton South. It would mean, in bales of cotton, approximately 2,000,000 bales.

The encouraging part of it is that there is a very real latent market here at home for cotton goods which are not now being bought because people do not have the money to buy them. The cost of manufacture, however, is great, and while the bringing of these people up to that level would add $500,000,000 a year to the South, it would be a costly sort of thing, but it indicates the opportunities which exist within our own country for increased industrial activity and increased farm income were it possible for people who can't now buy cotton goods to buy a modest amount, the amount that a family making, say, $195 a month would be able to buy if they had that sort of income.

I think it might interest the committee to know that when very poor people buy cotton goods, their first purchases are in the so-called heavier kind of cotton goods—mattresses, sheets, towels, pillowcases, comforters, and things of that sort—which take a relatively greater amount of cotton and require a relatively less amount for manufacturing cost. If these purchases were made among those items, approximately 20 cents of every consumer's dollar spent would go to the cotton farmer. Approximately 50 cents of every consumer's dollar spent would go to the manufacturer, most of which would go to employing labor in our cotton mills, and approximately 30 cents would cover the cost of transportation from the mill to the stores and the subsequent cost of merchandising the goods.

Mr. Nehemkis. Mr. Perkins, will you return the document which you identified?

Mr. Chairman, may I offer in evidence the document just identified?

Acting Chairman Reece. It may be admitted.

(The tabulation referred to was marked "Exhibit No. 621" and is included in the appendix on p. 4079.)

### THE FOOD STAMP PLAN

Mr. Nehemkis. Mr. Perkins, are you not experimenting with the distribution of surplus commodities through the issuance of food-order stamps?

Mr. Perkins. Yes; we are experimentally issuing food or stamps in a few selected cities as an alternative way of disposing of surplus commodities. I describe briefly the method by which we spent $65,000,000 this year for the direct purchase of the commodities ourselves. Those commodities are turned over to the States, as I indicated, and they distribute them to the relief families outside the normal channels of trade, largely through food depots. We felt that we might be able to get a greater net increase in consumption of the farmers' products if we utilized the normal channels of trade, and the purpose of the experiment is to discover whether or not in practice that actually takes place.

Briefly, what we are doing in Rochester is this: Instead of giving to the people the physical commodities, we give to them stamps, 25-cent stamps, which are good for a list of surplus commodities at any grocery store. The people shop with the stamps as they would shop with money; the grocers take the stamps and paste them on cards; each card holding 20. That is, for all practical purposes, the equiva-

lent of a 5-dollar bill, and those cards are redeemed through the banks and we in turn reimburse the person who turned them in.

Now from a standpoint of farm income we are hopeful—and thus far the experiment at Rochester would rather make us think this might turn out to be true—that by means of distributing surplus commodities in this fashion we can get a greater consumption of surplus commodities for a Government dollar spent than is possible outside the normal channels of trade. The grocers in Rochester have reduced their margins on surplus commodities they hope to make a greater net profit because of the increased volume than they made before, and they are very definitely trying to sell the farmers of America on the idea that the grocers of America are salesmen for their products and that they are willing to push the surplus products of farmers to the end that the farmers may have more income and therefore may be able to buy those things in the cities which make for greater prosperity in the cities.

Therefore, all of the housewives in a city like Rochester are very much aware of the fact that there are bargains to be had in surplus commodities and through display advertising and in some cases new ways of packaging, we think it is quite likely that there will be surplus commodities bought in a town like Rochester quite in excess of the amount bought by people who use the food stamps for the purchase of those commodities.

To be a little more explicit: If in a given town $100,000 is normally spent a month for a given list of surplus commodities and if we issued in that town $20,000 worth of stamps good for the purchase of them, rather than giving them away, as we have in the past, and if the housewives and families who are not getting public assistance bought another $20,000 worth of the surplus commodities, then we would have a situation in which for every Government dollar spent we would get another dollar's worth of surplus removed, and we feel that the grocers of America are in a unique position to render that service.

Obviously the farmers cannot do it for themselves and it is equally obvious Government cannot urge housewives to buy one farm product rather than another, simply because it happens to be in surplus, and yet in terms of a balanced economy, it is desirable that that sort of thing be done; by utilizing the private channels of trade, we are hopeful that perhaps we may, through this food-stamp method, not only be able to help soak up the surpluses on the farms, but to do it with less ultimate cost to the taxpayer than is possible under a program of direct purchase and distribution.

We won't know until we have tried this thing in a few cities, and have had a few months to look at it, whether or not these results will actually be achieved or not, but the thing has been accepted with enthusiasm, and all the folks locally who are interested in it are quite hopeful as to what may ultimately come to pass.

Mr. NEHEMKIS. Mr. Perkins, I show you two documents. Will you identify them by title, please?

Mr. PERKINS. One of these documents is entitled "Facts About the Food Stamp Plan to be Tried out in Rochester Upon An Experimental Basis." The other is a series of questions and answers on the food stamp plan as it is being tried in Rochester and indicates how it will work in Rochester.

Mr. NEHEMKIS. Mr. Chairman, I offer in evidence the two documents just identified by the witness.

Acting Chairman REECE. They may be admitted.

(The documents referred to were marked "Exhibits Nos. 622 and 623" and are included in the appendix on pp. 4081 and 4083.)

VOLUME OF OPPORTUNITIES CURRENTLY AVAILABLE FOR PRIVATE CAPITAL INVESTMENT

Mr. NEHEMKIS. I would imagine that a person in your position has considerable opportunity to discover the capacity of various kinds of plants in this country. You must run into bag manufacturers and other kinds of manufacturers. As you know, we have been exploring for the past 2 weeks with this committee the problem of idle money and idle machines and idle men; how we can open up investment outlets. Is it your judgment that there are opportunities for additional plant expansion in this country; or is it your opinion that we have too many plants now for the kind of commodities that you are familiar with?

Mr. PERKINS. Well, I think, sir, the answer to that question would perhaps be both "Yes" and "No," and I think it is quite important that the country become aware of the field within which the answer is perhaps "Yes," and the field within which the answer is "No." In my own limited experience I have come to both conclusions. I do think that the number one job ahead of us as American citizens is to break this log jam in investment, even if it means an expansion of Federal investment as a partial attack upon the problem so as to offer the people who want to work in this country an opportunity to work.

On the other hand I think there is a great deal of wishful thinking about the extent to which capital investment can be expanded. I have kept a little informal document in my office, which I have been keeping for the 3 or 4 years I have been in Government, and it is based upon a question which I have asked various groups of manufacturers who come to our offices in the course of the month.

I find that most businessmen are very intimately aware of the lack of opportunity for capital investment in their own particular lines of industry, but they do a great deal of wishful thinking about the large number of jobs which could be created in the other fellow's back yard. For instance, only recently a group of flour millers, all of whom were former friends of mine, were here on a matter of Government business, and in the course of talking about confidence and its restoration, and the desirability of having investment go forward once more so that people could get jobs as they did in the earlier history of our country, I asked these fellows rather jokingly how many flour mills they would like to build in order to help soak up the unemployed, and they told me, of course, flour-milling was a wholly special industry; that I knew there were twice as many flour mills in the country as we needed, even if we had a $100,000,000,000 national income, but they were quite certain there might be other opportunities. So I simply added another goose egg to the long list of people to whom I have been talking.

I haven't found any group of manufacturers in the country who recommend the building of additional plants with the national income

where it now is; who recommend the building of additional plants in that line of business with which they are intimately familiar. The hosiery manufacturers, for example, don't want any more hosiery mills built because with production where it is now, and with consumer purchasing power where it is now, they have overproduction in terms of what they are able to sell, and so it goes with cotton textile mills and cottonseed oil mills, with bag factories, and on down the line. I don't think that means that the picture is wholly discouraging, but I think it would be a very fine thing if the different groups of businessmen through their trade organizations would indicate to Government, in an effort to help us, how many new cottonseed oil mills or how many new flour mills, or how many bag factories, or how many textile mills they could build, if everything which is destroying confidence in their judgment were wiped off the statute books.

My feeling is that while there are still some opportunities, the rate of expansion in terms of building plants is definitely slowing down, and I think as a people, with Government and business working together, we have got to find ways of increasing investment so that we can offer these people who are out of jobs an opportunity to work.

I would like to add to that that it seems to me that we might very well set a national goal for ourselves. I do not know what it would be. But I feel that if we set out it might take 5 or 10 years to reach this goal, but if we set out with this sort of objective, that we will not have over 2,000,000 people in the country who want to work, who want the chance to be useful, young people who want the chance to get married and have families and live decent lives, that we are not going to have over 2,000,000 such people in the country who cannot have that opportunity; if we had that singleness of purpose as a people, then my feeling is that we would begin to discover ways and means of reaching that end and perhaps under an investment budget there are certain Government enterprises which might offer employment.

I think there is an opportunity through loans to business to bring about quite a bit of employment. The question was asked this morning as to whether or not in the case of the railroads a great deal of that could not be done. I, of course, have only the most superficial knowledge in that particular field, but the railroads do need rehabilitating; we do need new rolling stock, and if as a people we were determined to offer the chance to work to people who want to work, then I think we would find ways and means of moving toward that single objective to which all of us were looking.

Mr. NEHEMKIS. I take it, then, Mr. Perkins, that your own experience would corroborate the testimony which has already been given to this committee, namely, that by and large industry and business in this country is engaged in a program of plant replacement as distinguished from plant expansion?

Mr. PERKINS. By and large, my limited experience would indicate that. Several businessmen to whom I have spoken have had difficulty getting credit for machinery replacement, modernization; but I don't think there is a tremendous need, certainly with the national income where it is now, except in isolated cases, for the building of new plants. To get back to the singleness of purpose which I wish our whole people had, I think we could cause a considerable amount

of employment by loans to business for plant modernization, and here and there for plant expansion where new processes and new industries made that possible.

IMPORTANCE OF STIMULATING CONSUMPTION BY INCREASING THE VOLUME OF PRODUCTION

Mr. NEHEMKIS. I take it, Mr. Perkins, that the program which you have just outlined to the committee is one effort by which Government is meeting the pressing problem of idle men, idle machines, and idle money.

Mr. PERKINS. Yes; in a relatively limited way we are endeavoring to take foods, many of which would otherwise not move to market, to buy them at prices which give the farmers some income, and to move them, which of course gives some employment on the railroads, to move them to the people whose inadequate diets are such that frankly their health is jeopardized if they don't get them. I don't believe unless any of us tried living on 5 cents a meal we would have any notion of what the millions of people in this country who have to live on 5 cents a meal are really up against, and so we are making an effort to make this abundance which we have learned how to produce available in a limited field to people whose lack of opportunity to purchase is such that in many cases the health of youngsters is actually being jeopardized.

Mr. NEHEMKIS. I have no further questions, Mr. Chairman.

Mr. O'CONNELL. You spoke about the 3,700,000 families, I think, that are eligible for the surplus commodities that you buy and make available to them. Are they, generally speaking, who make up that class, the employables or the unemployables or both?

Mr. PERKINS. Those folks are largely employable people certified by the State department of public welfare, who would like to get jobs on W. P. A. but who are unable to because the quota is full. In many States the only method which the States have of caring for such people is to offer them surplus commodities which they receive from us as a sort of stop gap measure, hoping that something will turn up.

Mr. O'CONNELL. And in States where they do have some measure of home relief, I take it, surplus commodities supplement that home relief.

Mr. PERKINS. Yes; in States where home relief is more adequate than it is in many others then the amount of surplus commodities tends to be a little less. There are States, however, whose almost exclusive form of home relief is the donation of surplus commodities to these families. Some W. P. A. families, particularly the larger ones are certified by the various States as eligible to receive surplus commodities also.

Mr. O'CONNELL. A man might be working for W. P. A. and if the circumstances were as you indicate, he would be eligible for surplus commodities.

Mr. PERKINS. The State departments of public welfare have various rules for that, but there is quite a bit of flexibility in rules. If illness comes to a family or the family is unusually large, then they will certify such a family even though the head of the family is working on W. P. A. as eligible to receive surplus commodities.

Mr. O'Connell. Then all who are eligible, whether on W. P. A. or not, receive the surplus commodities as a donation to their diet, so to speak. They don't pay for it?

Mr. Perkins. No; they do not pay for it, and I like to spell these things out in terms that make sense to my own simple mind. I spoke of $65,000,000 having been used to take care of several million people. When you spell that down to what it means in sitting down to one meal, it means that instead of having 5 cents a meal you have 6 cents a meal: under the stamp plan where we are adding 50 percent to the amount of orange stamps purchased, we are increasing the amount per meal from 5 cents to 7½ cents.

Studies made by the Public Health Service and the Bureau of Home Economics indicate that with retail prices where they are at the moment, a person can't maintain health on less than 7½ cents a meal, so in connection with the stamp plan we are making available a slightly larger amount of surplus commodities than is now the case through our current method of distribution.

Mr. O'Connell. In Rochester may nonrelief people buy stamps which are redeemable in surplus commodities?

Mr. Perkins. No one can buy the stamps who is not certified as eligible for public assistance under our law.

Mr. O'Connell. But if they are certified for public assistance, they don't buy stamps, do they?

Mr. Perkins. Yes; I didn't want to get into the mechanics of it, but I will be glad to answer the question; relief people are now spending about $1 a week for food. We are offering these families in Rochester a voluntary opportunity to buy a dollar's worth of stamps a week per person, and if they take advantage of that opportunity, which leaves them where they were before and assures us that they will spend as much for food as they did before, then we add 50 cents in blue stamps to that dollar, and so the people are taking the money they get from their W. P. A. jobs or from home relief and buying that amount of orange stamps good for any food in any grocery store in the amount of $1 a week per person, and when they do that we add 50 cents a week in stamps which are good only for surplus foods.

Mr. O'Connell. From the point of view of the retailer in Rochester, does that mean two prices for the particular commodities listed as surplus commodities?

Mr. Perkins. I am very glad you asked the question because it very definitely does not.

Mr. O'Connell. I have heard it said that it did. That is the reason I asked.

Mr. Perkins. I may have confused the committee by indicating that the grocers in Rochester have reduced their prices on surplus commodities, but that is a fact and it applies to anybody in Rochester, whether he be a millionaire or not, who wants to buy the commodities which are listed; the heart of the stamp plan is this, that given an extra volume of business the grocers can afford to make a little less unit profit and still make a greater net profit, but whatever price they put on any surplus commodity is the price that is available to every housewife in the city of Rochester, and so to the extent that the stamp plan makes it possible to reduce sales prices slightly, we are

hopeful that there will be a net increase in consumption on the part of housewives who don't have to use stamps.

Mr. O'Connell. I think my interest in the details of this is probably greater than the membership on the committee would warrant, but I was interested in the mechanics of the plan. As far as your purchasing of the surplus commodities from the farmers, is the price that you pay the market price?

Mr. Perkins. The price that we pay in purchasing commodities out of this 65 million from farmers is not always the market price. Occasionally we buy it a little bit above the market price because of the fact that the law under which we operate is one which directs us to try to reach a certain parity level of farm income. Recently, for example, we started to buy cabbage which had fallen from $50 a ton to $5 a ton, and we began our purchases at $8 a ton and immediately all other produce houses began paying 8 too.

Acting Chairman Reece. Any other questions?

Mr. Myers. I should like to bring the attention of the committee again to what I believe to be the essence of this problem of trying to get capital to come into industry. Sometime ago there was a hearing before this committee on the glass container industry.[1] Evidence was developed whereby many investors weren't permitted to invest money in new plant equipment. There were obstacles in the way of investing their money in new plant equipment or expanding plant equipment and a fundamental obstacle which hasn't been developed during the course of the present hearings was the patent holding companies, companies which hold patents on machinery, and unless capital can get the permission of these companies to expand industry, capital simply can't get in and produce new products.

Mr. Nehemkis. I assumed, Ernest, that your department had developed that, but if the committee would like us to introduce further testimony on that point and will authorize us, we will be delighted.

Mr. Meyers. I merely wanted to reaffirm the position taken in the previous hearings.

Acting Chairman Reece. If that is all, we thank you very kindly, Mr. Perkins.

Mr. Nehemkis. Mr. Chairman, can we have a few minutes for a motion calendar so to speak? I have a number of things to introduce and that sort of thing. First, may I respectfully ask the committee that we adjourn for the afternoon. As the committee knows, beginning tomorrow afternoon and Friday the phase of our hearings will turn to small business men and their capital and credit needs. There are now in my office about 30 small business men whom I have to see in the course of the afternoon, and I should be very grateful to the committee if I might have that time.

Acting Chairman Reece. When the committee recesses, it will stand in recess until 10:30 in the morning and then whom do you expect to call in the morning?

Mr. Nehemkis. I would rather not announce a list at this moment because it will have to be made up this afternoon.

Acting Chairman Reece. Very well.

Mr. Nehemkis. I had hoped that Dr. Will Alexander, Administrator of the Farm Security Administration, would be with us this

[1] See Hearings, Part II.

morning, but very graciously in the interest of economy he has waived his appearance, and I should like leave of the committee to file his testimony, the statement on which his testimony was to have been based.

Mr. HENDERSON. In the interest of economy of time?

Mr. NEHEMKIS. That is correct, sir.

Acting Chairman REECE. The committee will be glad to receive the statement and address of Dr. Alexander that we didn't have the opportunity of hearing personally.

(The statement referred to was marked "Exhibit No. 624" and is included in the appendix on p. 4086.)

Mr. NEHEMKIS. Also a chart dealing with the Receipts and Expenditures of the Federal Government during the period 1931–38. It was to this preliminary effort on our part to give some approximation of what the Government's next plan is, what its amortization for that plan that I referred to, is. I therefore offer this chart, together with the supporting table therefor.

(The chart and table referred to were marked "Exhibit No. 625" and are included in the appendix on p. 4090.)

Mr. NEHEMKIS. I should like to offer a chart entitled "Holders of the Mortgages on American Homes."

Acting Chairman REECE. These may all be admitted.

(The chart referred to was marked "Exhibit No. 626" and is included in the appendix on p. 4094.)

Mr. NEHEMKIS. The next is Holders of the Farm Mortgage Debt, and the last one Owners of the Federal Debt, together with these supporting tables therefor.

(The charts and tables referred to were marked "Exhibits Nos. 627 and 628" and are included in the appendix on pp. 4095 and 4097.)

Acting Chairman REECE. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon, at 12:50 p. m., a recess was taken until Thursday, May 25, 1939, at 10:30 a. m.)

# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

THURSDAY, MAY 25, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
*Washington, D. C.*

The committee met at 10:50 a. m., pursuant to adjournment on Wednesday, May 24, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senators O'Mahoney (chairman) and King; Representative Reece; Messrs. Henderson, O'Connell, and Brackett.

Present also: Senator Claude Pepper, of Florida; Representatives Robert G. Allen, of Pennsylvania, and Jerry Voorhis, of California; Amos E. Taylor, Department of Commerce; Ernest S. Meyers, Department of Justice; Peter R. Nehemkis, Jr., special counsel, Investment Banking Section, S. E. C., and Joseph R. Kelly, associate counsel, Investment Banking Section, S. E. C.

The CHAIRMAN. The committee will please come to order. Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. I am, sir. Commissioner Henderson wishes to make a brief statement.

The CHAIRMAN. We have with us this morning Congressman Allen of Pennsylvania. Would you be good enough to come to the table, Congressman Allen? He is the author of one of the pending bills before Congress to provide for loans to the small industry. Some of the other sponsors of legislation are likely to appear during the morning. Mr. Henderson.

Mr. HENDERSON. This segment of the presentation by the S. E. C. has to do with the problem of the financing of the small enterprise. It was the thought that there ought to be brought together in one place the evidence, the opinions, and proposals having to do with this rising problem as it has manifested itself in the need of small-business men, and so the S. E. C. has undertaken to tap a number of informed sources as a basis for this presentation.

To mention just a few, the U. S. Junior Chamber of Commerce, Senator Mead, Representative Allen, and other Members of Congress who have addressed themselves to this problem have been in touch with what we are doing and our people have been in touch with them. Literally hundreds of small-business men have been interviewed by the S. E. C. staff and many, many more have communicated with the Committee and with the S. E. C. on this matter.

As the problem is presented in this segment of the study, it necessarily represents a selection on our part of certain typical cases. In fact, the presentation, I believe, is almost entirely by the case method. In nowise do we undertake to indicate that we have made a statistical canvass, nor by reason of the demand for economy of time, have we

any thought that in these short hours we can present all the aspects of the problem that have come to our attention. That will need to wait. In fact, one of the things I should like to emphasize is the high probability that a considerable amount of attention will be given the committee and its various agencies to this problem in the future.

Are you ready with your first witness?

Mr. NEHEMKIS. I should like to just say, Mr. Chairman and gentlemen of the committee, if I may, that for the past days you have been listening with us to the story of the over-all functioning of our economy. We have examined with you the formation of the national income, the flow of savings into investment, the reasons for the stoppage in that flow.

You have looked with us at many charts and many tables of figures. We have heard various recommendations from the Assistant Secretary of State, Mr. Berle; Dr. Hansen, of Harvard University; and Mr. White, the superintendent of banks of the State of New York, for improvements in the financial structure. But back of money and savings and financial devices are human beings. As Mr. Berle well said, the only justification of the financial system is that it moves the goods and serves the citizens of the community.[1]

This morning we turn away from over-all charts and tables to a consideration of the problems of the small-business man, as Commissioner Henderson has already indicated. What is the financial system, as now organized, doing to him? Is it serving him adequately? How can he be better served? If he were better served, could these blocked-up savings which we have been discussing find wider outlet through his initiative and enterprise?

I have the pleasure, Mr. Chairman, to call as our first witness this morning Mr. Arthur Whiteside, president of Dun & Bradstreet. Mr. Whiteside, please.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. WHITESIDE. I do.

## TESTIMONY OF ARTHUR WHITESIDE, PRESIDENT OF DUN & BRADSTREET, NEW YORK, N. Y.

Mr. NEHEMKIS. Will you state your name, sir, and your address?

Mr. WHITESIDE. Arthur D. Whiteside, 290 Broadway, New York City.

Mr. NEHEMKIS. You are president, are you not, of Dun & Bradstreet?

Mr. WHITESIDE. I am.

Mr. NEHEMKIS. Mr. Whiteside, I should be very happy if this morning you would discuss the problem of the small-business man, what he is, who he is, or how he is in our economy. Tell the committee, if you will, something about the numbers of small-business men who each year find their way into the fabric of our economy and those who are forced to leave it, and some of the reasons why the small business man is pushed out of the economy, in your own way, if you will, sir, and in your own words. Will you proceed?

[1] Supra, p. 3813.

VITAL STATISTICS CONCERNING THE BUSINESS POPULATION

Mr. WHITESIDE. I think probably I should state first what I consider the small business man, which is contrary in many respects to the definitions I have heard here and in business in general. I always think of a small concern as one that has ten to twenty-five thousand or less. I mean, those are literally, in credit parlance, small concerns. Other concerns are moderate or large.

I think if I give very briefly a few of the figures that are basic to the situation, we can all think probably along the same lines.

There are 1,680,000 concerns worth less than $100,000. Now, when I use the word "worth," it is rather a broad statement, and we generally think of it as net worth.

The CHAIRMAN. You said 1,680,000?

Mr. WHITESIDE. Yes, sir.

There are 280,000 concerns with investments between ten and one hundred thousand dollars. There are 90,000 concerns between $100,000 and $500,000, and there are 50,000 concerns with an investment in excess of $500,000. These are known as the commercial concerns of the United States and do not include banks and insurance companies, or service concerns not seeking credit.

Another way of putting that that may stick easier in our thinking is to say that 30 percent of all commercial units have an investment of $500 or less; 48 percent have between $500 and $10,000; 21 percent have in excess of $10,000, and that probably will be the group that I will speak about more definitely than any other.

Those with more than $75,000 constitute 6⅔ percent of the number; with more than $500,000, 2.5 percent.

These figures will only take a few minutes. I am not going to bore you with many, but they seem to be the high spots essential for the groundwork of any discussion of the subject.

The CHAIRMAN. I think they are very interesting. They are not boring at all.

Mr. WHITESIDE. There has been much publicity given to the ins and outs of business and to the changes that occur in the commercial life of the country as far as the individual unit is concerned. There are 200,000 little changes which constitute those of name, method of operation, type of business, and general set-up, and liquidations and failures, every 60 days. That seems like a very large number, but the changes are incidental and have little bearing on the actual business of the country, unless it is broken down more definitely.

For instance, there were in 1934 12,091 failures. In 1935 there were 12,244 failures; in 1936 there were 9,607 failures; and in 1937, 9,490 failures. Now we can see the picture right here when I say in 1938 there were 12,836 failures. It is quite natural that the number of failures would increase as the total volume of business transacted throughout the country contracts and that they should increase in number under those conditions and expand in number when the reverse occurs and business is larger in volume.

The most impressive fact, and one that we can leave with you first, is that 30 concerns which are in business liquidate voluntarily, and as far as is known, pay their debts, to one concern which fails, and of all the concerns that fail, not more than 10 percent perpetrate swindles in the legal sense of the word. In other words, it is a reasonably

honest country. I don't believe the record is exceeded in any other country.

With the last group of figures which has to do with the length of life in business, I have taken a cross-section of several thousand concerns and reduced it to the unit of 1,000 concerns, which can be multiplied in any way you might care to do it.

Seven hundred and fifty out of the 1,000 concerns were 2 years old, 580 were 5 years old, 500 had been doing business for 7 years, 370 had been at it for 10 years, 250 for 15 years, 100 for 25 years, while 5 were crossing the half-century mark.

The CHAIRMAN. What was that last statement?

Mr. WHITESIDE. Five are left at the end of 50 years.

May I make just a general comment regarding what I have said?

The CHAIRMAN. It would be very interesting.

Mr. WHITESIDE. Personally, I have been particularly interested in small business, and I mean literally small business, because my father started in business when he was a salesman and saved probably ten or twelve thousand dollars. He went in the manufacturing business, manufacturing jewelry, in fact. In those days $12,000 served a broader purpose in business than it will at the present time. When I started in business I started in the same way, and I borrowed 10 of that 12 from my father, and that is the way I got started.

The CHAIRMAN. May I ask upon what information, what material, and over what period of years' experience was this table that you have just presented to us, based?

Mr. WHITESIDE. That is rather general to any term of years.

The CHAIRMAN. This is a conclusion which you have drawn from certain facts, and I would like to get that background of fact.

Mr. WHITESIDE. We have taken concerns that are now in business and referred back that way, you see, to get how long each one has been in business on one side, then we have taken the reports on concerns that have liquidated to get it from the other side.

The CHAIRMAN. Is this a conclusion drawn from the factual material compiled by Dun & Bradstreet over the years of its operations?

Mr. WHITESIDE. No; it is not. It is a conclusion which we have drawn from taking data from the files within the last 6 months to obtain it, on this particular cross section. We have other figures that are more general than that. These are more specific and probably subject to more intelligent analysis than the others have been.

The CHAIRMAN. Well, I am trying to find out what sort of a sample you used to get this table.

Mr. WHITESIDE. We used the information on 6,026 concerns, to be exact.

The CHAIRMAN. Six thousand and twenty-six concerns?

Mr. WHITESIDE. Both in town—we used 3,000—approximately 3,000 in the larger cities, and 3,000 in the rural districts or smaller towns.

The CHAIRMAN. In other words, you took the life history of these 6,026 firms whose records were in your files?

Mr. WHITESIDE. Yes; and I feel that it is reasonably accurate, or I wouldn't use it, because I put a man in charge of it that I knew knew what he was after and knew how to find it, and he is extremely careful. I can substantiate that with any details of the figures if you care to have them.

The CHAIRMAN. I wonder if you could tell us how the record of failures in recent years compares with the record of failures in the early years?

Mr. WHITESIDE. Well, the record of failures runs in a percentage to the number of concerns in business, without very much change; never exceeding 2 percent, and usually considerably lower—as you can see from these figures. I believe the highest mortality rate was in 1932, of all times; we had a record of it; I wouldn't say that was absolutely accurate because the records in 1893, for instance, were not as comprehensive—the coverage of the companies was not as broad.

Mr. HENDERSON. You remember, Mr. Whiteside, that extensive study we made at N. R. A., when you made your records available to us, showed that 1932 was, as far as recorded experience went, the worst year we had ever had?

Mr. WHITESIDE. I believe it was from unit and dollar standpoint, both. I have not the units here because that throws that out. It is rather difficult to obtain those accurately, and we do make estimates, as you know.

Mr. HENDERSON. As I recall, 1937 was the best year since the early 1920's?

Mr. WHITESIDE. The best year was 1937. Now there is one other point I did want to make.

The CHAIRMAN. May I ask before you go to that? With respect to this particular set up, what portion of terminations has been due to voluntary withdrawal and what proportion to failure?

Mr. WHITESIDE. This ratio, Senator, would normally be between 20 or 30 to 1. The ratio of failures to total number of concerns in business would be less than 2 percent—under some circumstances even less than 1 percent. I mean it is almost infinitesimal from the number standpoint.

The CHAIRMAN. Then most terminations are due to the voluntary action of those in charge of a business?

Mr. WHITESIDE. Unquestionably, sir. Most terminations in business are due to that fact.

The CHAIRMAN. I suppose that some terminations are due to a change of form?

Mr. WHITESIDE. Yes.

The CHAIRMAN. Of course, two or three men might be engaged in business in a partnership and then decide to incorporate, and that would show termination of the partnership and the beginning of a new enterprise, but the actual business would be going on?

Mr. WHITESIDE. Yes; the computation I gave was on that basis, the basis of total terminations. Another calculation is possible, however, if changes in personnel are not regarded as constituting a termination. Technically it would not have been 200,000 changes every 4 months.

The CHAIRMAN. I am glad to have that clarified.

### MORTALITY RECORD OF THE SMALL RETAILER

Mr. WHITESIDE. I want to just speak here about the small retailer. I have always liked those little birds because, as I say, we started out there and as everyone knows the small retailer is the place

that the man comes out of employment and starts in business, and I think we overlook the fact that the small retailer or the man who starts in business usually hasn't the balanced experience or intelligence which is required, because there is nothing that he has to do other than to show the disposition to rent a store and start. Now, we find that the men who make the best progress when they do start, and the ones that seem to know their business better than any others, are those who have managed a retail establishment, either as a unit of a chain store, a system, or as someone who has managed perhaps in key ownership, direct ownership, for that matter.

But when a man has had experience only in the buying or store selling and no financial experience and starts in business with a few hundred dollars, he has a great deal of difficulty in getting through; he has no clientele; he has no hold on the community, such as a man who has had that experience in daily contact with people does have.

The inclination of most men is to show that more people enter naturally and easily into the foodstuff business as retailers than any other form of business. It is the kind of a business where a man and his family know they can live off the business to some extent; in other words, the money spent for inventory and things of that kind is something they can visualize the utility of, and that is the way most business starts.

The emphasis about the small business, if he conducts himself properly there isn't any question that he can obtain credit, but banking credit is not usually essental under those circumstances because what he buys he does not hold in inventory, and he passes through quickly and gets it on a credit or cash term, usually on credit, which is unfortunate because they don't understand that part of it.

I just want to point out one thing that makes the failure record even higher than it would otherwise be, and that is because men go into business who will inevitably fail. The mathematics is against their success; there isn't a possibility of a man succeeding under certain conditions. For instance, if a man starts in business with an investment which does not turn over, under any basis of reasoning, into a sufficient volume of business on which a profit of the best expectation would yield the man the living that he must have, it is inevitable that he will fail.

I venture to say that over half of all the failures that are recorded in every way are in that classification. In other words, there is need in this country, and a definite need, of some place where a man can go and get some factual information and sound common sense as to what his chances of success are in business, and those things can be done mathematically. They are not a matter of opinion. There are no exceptions to inevitable laws, and that is one of them.

The other thing is the easiest way to go in is to go in as an individual. Seventy-one percent of all businesses starting are started as individuals. Sixteen are by partnerships. Eleven, in corporate form, and seven-tenths of 1 percent in other forms.

The least capital requirements in starting a business or conducting a business in proportion to the volume transacted is required by

retailers. There is one phase of the situation which does not come directly into this problem that should be given very broad consideration in deciding what to do and that is that the wholesaler must exist in America if the independent retailer is to live. There must be some intermediate position taken where the interest of the seller is primarily tied in and definitely tied in with the groups of retailers in the surrounding territory. Now the wholesale trade has not been considered a sensible, logical business because of its general results during the past years. I have made a longer study of that type of business than anything else I have ever done, more intimately, long before I was associated with the business I am in now, and I found that wholesaling was the cheapest, most economical way of distributing goods by taking a national brand of any kind or any other form of merchandising, holding it, warehousing it, extending credit terms and selling it to the retailer, because the wholesaler had a vital interest in the retailer, knew his problems, could meet the situation when he was slow pay, or something of that kind.

Now, we hear all about direct selling. Direct selling is not to the best advantage, I believe, to the majority of people that do it excepting in products where the value runs in the individual unit sold between forty or fifty dollars or higher; but on small units it is absolutely not the economical way to do it.

The apparent lack of stabilizer of business and the vitality of business—largely irrespective, I believe, of all opinions to the contrary—is not from those in the moderate sized group, those concerns both in manufacturing and retailing and wholesaling who have an investment and properly conduct their business of an amount between $25,000 and $750,000 to a million. Of course, there are no exact marginal lines there, but those are the people who make the business of this country. In volume they do the largest volume. They have not the largest investment, and those concerns continue to act as stabilizers, to reflect the conditions as they occur and carry on at a greater profit over the period of years than the large concerns or any others. That is due largely to the fact that they are flexible. They can change their financial situation very, very quickly. They haven't stockholders to worry about. They have no directors to worry about as a rule and a man can act spontaneously and keep even with the conditions; and bear in mind that the losses in profits recorded in large businesses are more definitely attributed to inventory rise or fall in valuation than any other single thing. Inventory profits are not the substantial, sound profits that we want in business. Naturally we are glad to get them, but on a long swing where we have the ups and downs repeatedly in business you will find that the moderate-sized, flexible unit will outearn the big units every time.

Now, that does not apply where patents exist. I wouldn't know that, but under the general merchandising commercial credit scheme of this country the medium sized unit is the life of business. It is further the life of business in this respect. It can operate very, very often on a smaller mark-up than the large concern. It has, of course, a broader coverage than the small concern, but bear in mind that the difficulty of getting out of the class of the very small into that moderate size is not very great comparatively. It just takes a little common sense in business and eternal work to do it, and, God knows, everybody has to work anyway.

The CHAIRMAN. What do you call the moderate-size business in the terms of the first table that you gave us?

Mr. WHITESIDE. I said at the beginning, Senator, I felt that the moderate-size business was anything above $25,000 and less than $750,000. I mean there is a business that you can visualize, a one-man business or maybe two or three, whether incorporated or not.

The CHAIRMAN. From 25,000.

Mr. WHITESIDE. To 750,000 to be broad. It is that intermediate group, and they are the group, I believe, that you are mostly concerned about from a financial standpoint.

The CHAIRMAN. Have you made any tabulations to show the aggregate amount of business ordinarily done by such concerns as compared with the aggregate amount of business done by concerns which are larger and concerns which are smaller?

Mr. WHITESIDE. I tell you I did that, and I am just afraid to quote the figures—they are so astonishing to me—that is, the amount that is done by both the groups under 25,000 because of their great number and the spread throughout the country and the number between 25,000 and 750,000 and 1,000,000. There is not much difference between those two and it is the bulk of the business in distribution in this country unquestionably.

Mr. HENDERSON. May I repeat, Mr. Chairman, what was said earlier? In this presentation we have been careful not to try to get statistics about the volume of business. However, the Department of Commerce is making a very extended analysis for the committee by size of enterprise covering the Census figures. In addition, as we go forward (as I hope we will and as I believe you hope we will) we will give considerably more attention to small industries and we will have a factual background against which to plot these two days of testimony supplied by persons who know the problems of business.

The CHAIRMAN. I am aware of that, of course, but I was asking this witness' opinion on it because of his position of authority, a rather unusual position of authority, I think. It is a striking fact which has been developed by other studies, for example, that the total amount of money available for expenditure for the purchase of the commodities which business and industry produce among the low-income families is much greater than the total volume available for the same purchase by the very high income families. So that your thesis that the medium sized businesses are the concerns that are the backbone of business, corresponds exactly with the other opinion that the building up of the purchasing power of the masses is, after all, in all probability the heart of this problem.

Mr. WHITESIDE. That is the heart of our entire problem.

The CHAIRMAN. I think so.

Mr. WHITESIDE. It is the fundamental of the whole thing.

Mr. HENDERSON. Mr. Whiteside, do you have any opinion as to how these medium sized, strong and stable companies and enterprises come into existence? Do they develop as a matter of growth from smaller enterprises or do they start in full bloom with a high volume of capital between, say $25,000 and $750,000? How do they start, usually?

Mr. WHITESIDE. I will state—and I make a guess only from my feelings in the past—I would say that 75 percent are the outgrowth of the man that starts with nothing at all to speak of.

Mr. HENDERSON. So they represent the most virile and most able and most efficient of the small enterprises. Would it follow, then, from your opinion that in order to have a strong, virile, and stable medium sized group there has to be this opportunity for small business to start very small with the prospect of growing into medium-sized business?

Mr. WHITESIDE. I would say, as a general answer to your statement, that it is utterly impossible to expect to have a sound economy in this country unless an individual can go in business with very little money. There is no chance, no incentive.

Mr. HENDERSON. Little money and his own energies.

Mr. WHITESIDE. Don't get me started on that subject. I have been that way for years. I tell you I have owed money all my life to people and it was pathetic and it was just because I had to get that money that we got along at all. My father had that same trouble in 1893. My home was very, very sad, and I never forget that thing. There weren't any big people then so we couldn't blame anybody.

There is one thing I would like to stress and it has to do more with emotional feeling than anything else, and that is the fact that it is not best to have it too easy to go in business or too easy to stay in business. The moment we do we handicap those who have the ability to do the things that have to be done to make good. In other words, you are going to close the opportunity to enter business if it is made so that nobody goes out of business, because of incompetence in one respect or another; and we have tremendous sympathy with people that want to stay in business. We all would ourselves, but if they do conduct themselves for maybe 1 or 2 or 3 years in a way which will give the indication of what they are going to do in such a way that they are not entitled to credit, I think it is charity to tell them it might be well to liquidate. They have had their living out of the business. Their investment loss is not too great and they are usually not too old to start something else, and I think it is the same as to tell a man you are not going to keep him after 45 when, at 40, you see indications that he is a dumbbell. I think it has to be done.

Mr. HENDERSON. That was one of the most difficult lines to walk in N. R. A., as I recall. You had most of the wholesale and retail codes and practically all those codes that touched thousands and thousands of small business men, and I can recall the difficulties that were there constantly. They were constantly pressing for what amounted to guaranties and great effort was spent in trying to find something which would give them a fairer basis of competition with other organizations.

Mr. WHITESIDE. That is right. It is quite often the case that most people in a general way desire what they shouldn't have. The retailers, I recall distinctly, went to the President and argued about it and all demanded universally in this country that they have a provision in the code that made every retailer sell at 10 percent above the net delivered invoice cost, and it would have crucified every small retailer in the United States if that had been done, and rigidly enforced over a period of years. Why they didn't understand it, I don't know, but I asked the President to do it because they wanted it so badly.

There is one other thing that I emphasize, and that is in connection with the bankruptcy law which has a strong bearing on what you men are going to consider, and that is not to tie that up and sew it up so that every man who can't pay his bill is a criminal. We have seen the result of rigid bankruptcy laws and the disgrace that follows bankruptcy in England and France; not in Germany to the extent it is in England and France. They are the only ones I know intimately because I go there every summer. If a man fails he is damned. It doesn't make any reason how he failed, he may go to jail, and with respected people he is just damned eternally for having failed.

That isn't the way we look at it in America. We wouldn't have built this country as it is, we wouldn't have had any of our present development, if it hadn't been for the fact that we could put in everything we had and then if we didn't make good—could give back what we had left and then go on again at some future time. Those are the things that have made this country—that is, the liberality of the bankruptcy laws and the liberalities in the extension of credits and the tolerance that we have, and the avoidance of the acceptance system, which I think is another deadly hindrance to the progress of business.

There are two or three suggestions, and then I will stop, unless you want to ask anything. I don't want to be asked.

Senator KING. If you have any suggestions, speaking for myself, I should be glad to hear them.

Mr. WHITESIDE. Senator King, I don't know whether I have, but I have been through this thing for some time. There is one other thing that I just want to emphasize in connection with keeping the less efficient people in business, that is the destructive influence they have on the good business by selling below cost to survive. I mean, one of the main difficulties when we have a decline in this country of merchandise value, is that pressure to sell on a contracting market by the units not efficient, to convert merchandise into cash which breaks the whole price structure far below where it should be. That is one of the deadly factors in the rapid declines we have; that and some consideration of installment selling which is not all good.

Senator KING. You would not care, would you, to have the States or the Federal Government, itself, trying to enact into legislation the fixing of prices or compelling persons not to sell at reduced prices, or even below cost?

Mr. WHITESIDE. That isn't it. That wasn't what I was expressing. I mean that goods can be sold below cost, they can be sold as distress goods, you see, and the money can be brought in from those which is required from the largest or smallest; the orderly disposal of goods instead of throwing it over without the necessity in many instances.

What they are trying to do is to buy a goodwill, which is fatal. because then everything they sell is recognized as a "buy" and when that is sold the buyer invariably controls the market, whether it is a consumer or anybody else. If I go into a cut-rate store and get the habit of buying at cut rates and go in there and they charge me the regular price, I am through, I wouldn't go back. I think human nature is that way. When they establish the record during depressed periods of selling goods lower than any of their competitors and

don't do it for a specific purpose, or buy lines which justify it, in other words, in a disorderly way, they are the most deadly menace to the good concerns that we have in business.

Senator KING. Conceding that, how are you going to rectify that situation?

Mr. WHITESIDE. I think a good many States have.

Senator KING. That is by preventing the sale of commodities below cost?

Mr. WHITESIDE. That is right. Is Senator Mead here? I believe in New York they have done that. I know they can't go on just recklessly sacrificing merchandise there as a practice right along.

Senator KING. Who determines cost?

Mr. WHITESIDE. It wouldn't be a question of that, Senator King. It would be a question of continually sacrificing goods below a reasonable market.

Senator KING. Who sets the standard of what is reasonable and what is unreasonable?

Mr. WHITESIDE. Can I get clear that I am not raising the point to have laws passed for that purpose. I raised the point about not financing concerns to keep them in a position for doing that. When you start asking me questions, I am back in the old N. R. A. days, on the defensive. I didn't mean that.

Senator KING. After all, the morals which prevail in business generally will restrain any protracted conduct that would be regarded as against the best interests of the public.

Mr. WHITESIDE. I think so.

Senator KING. So after all, you have to rely, have you not, a great deal upon the approval or disapproval of the public, and the moral standards of the people themselves, for business as well as human conduct.

Mr. WHITESIDE. I think particularly so in smaller communities where we know each other. Don't you feel that is true? In the bigger cities——

Senator KING (interposing). Have you been asked and would you have any hesitancy to express your views as to the so-called fair-trade bills which are finding expression in so many places?

Mr. WHITESIDE. Literally, men in our organization have made a very careful study of them. I have read their conclusions. I believe the objective is perfectly fine and I think in some respects they meet the objectives, but that there are modifications due which can only be drawn from the actual experience we have had. And I think that is probably what the sponsors of some of those bills think themselves. There is no way that I know that we can get up rules for mercantile life and have them correct to start with. All we do is to set a place to go, and certain limitations, and then gradually refine those, because businessmen can't do it, and I don't think lawyers can go it if businessmen can't, I mean even when they are allowed to do it, you see.

### NEED BY SMALL BUSINESS FOR FINANCING FACILITIES

Mr. HENDERSON. Just one question there, Mr. Whiteside. You spoke earlier of the underfinancing of the new entrant into business as one of the big causes for failure; that is, many people go into

business with insufficient capital really to have the amount of turnover required even under the best conditions to return a profit. Isn't that factor very largely related to distress selling when there is a declining market?

Mr. WHITESIDE. There isn't any question about it.

Mr. HENDERSON. Hasn't the experience been that the pressure naturally falls heaviest and first upon the underfinanced concern, and as a result you have a demoralization of a market at times which comes from necessity of having immediately a volume of business, a necessity that would not arise if it were able to take a longer-term view through adequate financing?

Mr. WHITESIDE. But it doesn't seem practical to finance the man to get started. He must show the characteristic—may I make a personal comment that you ask the question better than I make the statement. The quesion was much clearer than I expressed myself originally.

There are just two or three things that have entered my mind in these past several months, and I think they were recorded here in one way or another, perhaps with the Business Advisory Board. One was the consideration of the change in the limits of the requirements of the Security Act for the information that is required in filing. I don't know whether that is fundamental to the act or to the opinion of the act; I have never discussed it with anybody connected with the S. E. C., but if that limit were raised from 100 thousand to 250, or any figure, and still have some questionnaires under that, maybe abbreviated, I think there would be demand for capital money. In fact, small concerns or moderate concerns have told me that they might think of doing that, because we have had experimentation that way on the part of investment bankers in the sale of those securities, and while they haven't been highly successful, yet it was when the bankers went out to get those on the desire to have an example, where management fell down so atrociously in the medium sized concern.

The second thing that does seem important under any circumstances, no matter what agency is used, or whether it is the present agency, in connection with the existing condition, is to know what actually happens, what disposition is made by the existing banks of applications for loans.

It is not known throughout this country. There is no way of knowing what is the field or the scope in connection with anything, any accidents or changes in the present situation, which will finance the moderate size concern, or anybody else. Nobody knows; it is merely an impression, and naturally the unhappy are the first people to say a good deal about it.

Senator KING. Those loans to businesses, particularly in rural communities, or in sections of the large cities where the person seeking the loans is well known to the bankers; it depends, does it not, a great deal upon the personal equation?

Mr. WHITESIDE. Unquestionably.

Senator KING. And many persons without any resources which ordinarily might be required to justify a loan, obtain the loan because of their high character in the community?

Mr. WHITESIDE. There isn't any doubt about it, and that should be maintained forever. I mean, that is what is required. There is only

one observation I might make, and I don't know whether it is worth while making or not, but when we discontinue—when we change the banking law so that the banks could not have investment companies connected with them, we might have gone too far, and it might be that banks would serve a very sound purpose if they could originate and underwrite securities without being able in any way to have anything to do with the selling of the securities, other than disposition of those in a block to any underwriting company not affiliated with the bank. A bank is the logical place to go for money. Other agencies may be required, but if a man can go to a bank and you have the record of the number of people that go to banks to get the money that they want, or don't get it, then you have actual facts, and that can be obtained in 60 days, as long as any publicity is given to that.

Then if the bank in a rural community can't originate and underwrite security without the power of selling it, where the difficulty arose, as you all know, the whole trouble in the 1929 market was the pressure to get securities to sell by these high-powered and expensive sales organizations which were being maintained in all parts of the country. Now if the banks are not associated with that, their whole idea of going after or originating or accepting issues and financing those to the point of underwriting, where they buy those securities themselves and then sell them to somebody who has no association with them, you might get a sound way of doing it and you would get that local atmosphere that seems to be required in every community.

The banks could do those things and it might help.

Senator KING. You would recommend changing the banking law?

Mr. WHITESIDE. I would not recommend it, Senator King. I mean I just suggested there might be an out there; I don't know that; I am not a banker and I haven't been a close student of banking laws, or the results, but that result seems to be rather disastrous to the small concern in the out-of-town community, you see.

Mr. HENDERSON. Mr. Whiteside, the temptation is always to go on with extended questioning with someone like you on the stand. We have so many witnesses pressing on us that I am going to refrain, knowing that in the past we have always been able to draw on your organization for statistical material and also to tap your own resources at any time we wanted.

Mr. WHITESIDE. Thank you.

The CHAIRMAN. Thank you very much, Mr. Whiteside. Will you call the next witness, please?

Mr. NEHEMKIS. Mr. Norman Gallagher, please.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. GALLAGHER. I do.

The CHAIRMAN. You may be seated, Mr. Gallagher.

Mr. GALLAGHER. Thank you.

## TESTIMONY OF NORMAN GALLAGHER, DETROIT WASTE WORKS, INC., DETROIT, MICH.

Mr. NEHEMKIS. Will you state your name and address, please?

Mr. GALLAGHER. Norman E. Gallagher of Detroit, Mich.; the factory address is 7355 Bryden Avenue.

Mr. NEHEMKIS. Mr. Gallagher, what is your position with the Detroit Waste Works, Inc.?

Mr. GALLAGHER. Vice president, general manager, and treasurer.

Mr. NEHEMKIS. Am I correct in assuming, Mr. Gallagher, that the Detroit Waste Works is the outgrowth of a sole ownership which had been in existence for a number of years?

Mr. GALLAGHER. Yes; in 1893, established by my father.

Mr. NEHEMKIS. And you carried on that business?

Mr. GALLAGHER. He is still living, but not active.

Mr. NEHEMKIS. What do you manufacture, Mr. Gallagher?

Mr. GALLAGHER. Well, we manufacture an industrial shop towel; they are used to take the place of wiping cloths for industrial cleaning, and we put those out on a rental basis and when they become soiled we pick them up and either dry clean them or wash them, and rent them to someone else. We also operate 20 looms, making this fabric; we have 20 knitting machines running on knit polishing cloth that goes not only for cleaning purposes but is used in the meat-packing industry for the smoking of hams and the covering of fore and hind quarters of beef. Also, we wash and rewash wiping rags.

Mr. NEHEMKIS. How many employees do you have in your company?

Mr. GALLAGHER. Seventy at the present time. We also maintain a branch at Battle Creek, Mich.

Mr. NEHEMKIS. Your company has had a pretty rapid expansion during the past 5 years, hasn't it, Mr. Gallagher?

Mr. GALLAGHER. That is correct.

Mr. NEHEMKIS. And your present assets are $142,000, roughly speaking?

Mr. GALLAGHER. Yes.

Mr. NEHEMKIS. In a general way, what do your assets consist of?

Mr. GALLAGHER. Three separate buildings, one of which houses our laundry; the other one houses the looms, and the knitting machines, and you might call that a small textile mill; and the third one is a new dry-cleaning plant which we just erected in 1937.

Mr. NEHEMKIS. You have experienced fairly good profits have you not, Mr. Gallagher, during the years 1936 and 1937?

Mr. GALLAGHER. Yes; I believe in 1936 they were close to $12,000; in 1937 they were $25,000, and in 1938, after charging off a $9,200 depreciation, we showed a loss of $6,500.

Mr. NEHEMKIS. And for the 6 months ending March 31, 1939, I think your company ended with a profit of about $6,100?

Mr. GALLAGHER. After making provision for the necessary Federal taxes.

Mr. NEHEMKIS. I would take it from what you have just said that your company has followed sound accounting practices and you have taken proper depreciation and other charge-offs?

Mr. GALLAGHER. Well, we have a certified public accounting in on a 3-month basis, and here recently we have changed that to a monthly basis.

Mr. NEHEMKIS. Your company at the present time, Mr. Gallagher, really needs some working capital. About how much?

Mr. GALLAGHER. I would say $15,000 to $20,000.

Mr. NEHEMKIS. Now, if you could get that working capital, what would you do with it?

Mr. GALLAGHER. Well, if we could get that working capital it would enable us to—we could pay for that money through discounts saved alone.

Mr. NEHEMKIS. How much would you save?

Mr. GALLAGHER. Oh, I would say possibly, approximately, $200 a month of discounts alone.

Mr. NEHEMKIS. Now, do you need what I might call long-term working capital or short-term working capital? Or possibly both?

Mr. GALLAGHER. Well, I think that there is a decided need for long-term business loans. The reason I say that is that a short-term loan does not enable one to get over the slumps which you gentlemen will agree sometimes are of longer duration that we all expect.

Mr. NEHEMKIS. You could take on at least seven new men, couldn't you, Mr. Gallagher, if you got the working capital you mention?

Mr. GALLAGHER. Yes; I believe so.

Mr. NEHEMKIS. Now in the past you had attempted to get this working capital from a number of banks in your city, the city of Detroit, have you not?

Mr. GALLAGHER. Yes; there are four banks, and the Federal Reserve Bank of Chicago. They reduced the line of credit during the last 3 years because in their opinion we were not liquid enough in quick assets.

Mr. NEHEMKIS. Well, now, after you went to these various banks, did they make any suggestions to you as to where you could get financial aid?

Mr. GALLAGHER. This one particular bank that we went to—we had had a $6,000 line of credit through the discounting of accounts receivable. We paid all that up and asked them for some additional credit. We asked for $5,000 worth, asked them to discount $5,000 worth of accounts receivable, and they agreed to do this, using those accounts receivable for collateral, but in addition to that—there is a little humor connected with this, gentlemen—in addition to that they asked for a mortgage on two free and clear buildings worth $15,000 and at the last moment presented me with a note for $5,000, upon which they asked my personal endorsement. Well, before we rejected these terms I couldn't help look this banker right in the eye and ask him if he also didn't want my left arm. Then the bank recommended that we go to a finance company.

Mr. NEHEMKIS. Did I understand you correctly, Mr. Gallagher, that the bank that you had applied to for working capital recommended that you visit a finance company?

Mr. GALLAGHER. Yes; definitely.

Mr. NEHEMKIS. Are there finance companies like the one that was suggested in Detroit, or were you asked to visit some other city?

Mr. GALLAGHER. Well, this particular one happened to have a branch in Detroit, and so we called them up and they were very happy to do business with us. Their service charge—by the way, you gentlemen might be interested in knowing, first of all, they required a $60 bond. What kind of bond it was I couldn't tell you.

Mr. NEHEMKIS. Did you ever see that bond?

Mr. GALLAGHER. No; I never saw it.

Mr. NEHEMKIS. Did you sign it?

Mr. GALLAGHER. Yes; I don't know what name it would come up under, whether an assumed name or not, but we will call it a bond;

and the rates were 1 percent service charge per month, plus 6 percent interest on the money, which makes 18 percent a year. That is rather high financing, gentlemen.

Mr. NEHEMKIS. Do I understand you correctly that it is costing you 18 percent a year to pay the interest charges on the loan that you obtained from this finance company; is that correct?

Mr. GALLAGHER. You gentlemen check the figures; they require 1 percent service charge per month; that would be 12 percent a year, and 6 percent on the use of that money on top of that; that would make 18 percent. Right?

Mr. NEHEMKIS. I think that is correct. Do you have any questions that occur to you, Mr. Kelley?

Mr. KELLEY. In connection with the working capital of 15 or 20 thousand dollars that you said you needed, you wanted that on a long-term basis; is that right?

Mr. GALLAGHER. That is correct.

Mr. KELLEY. Did you have any ideas in mind about securing the banks for that advance?

Mr. GALLAGHER. Well, yes; very definite ones; and I think, with the permission of you gentlemen, if I could just read this and talk on it as I go along it would answer these questions; and if given that permission and there are any questions you gentlemen would like to ask, please interrupt me. May I go ahead with this?

Mr. KELLEY. Is your statement a short one, Mr. Gallagher?

PROPOSAL FOR SETTING UP INSTITUTIONS TO FINANCE SMALL BUSINESS

Mr. GALLAGHER. Comparatively short; yes. First of all, thank you for the opportunity of being invited here to give my views of the urgent need of small and intermediate business. I respectfully submit the following questions for your consideration: First, liquidate small business's frozen assets; that is, buildings, equipment, and inventory. The average small business man has not the necessary capital to weather over a prolonged slump.

Second, have the Government set up a separate branch to handle these long-term business loans similar to the F. H. A. The Government already has the nucleus of such an organization to start this important work, and the young men who were sent out on this S. E. C. investigation were very capable. They were very businesslike, by the way, and wasted no time. These loans would be secured by first mortgages on land, buildings, and equipment, guaranteed by the Government, and should be divided into two classes—first, for the man who owns his own buildings and has a heavy investment in machinery and equipment; and, secondly, for the man who rents his place of business and does not have much machinery or equipment but has merchandise and accounts receivable to pledge as collateral.

This financing should be from 10 to 20 years and amortized in equal monthly payments with interest at 5 percent. The reason for making loans of not less than 10 years and preferably, gentlemen, 15 to 20, is to take care of any long slumps which might occur.

The CHAIRMAN. Did you hear the testimony of Mr. Whiteside that at the end of 10 years 630 out of every thousand concerns had gone out of business? [1]

[1] Supra, p. 3874.

Mr. GALLAGHER. Yes; I heard that, but fortunately we have been going for over 40 years, so I presume being average, Senator, that there must be——

The CHAIRMAN (interposing). Apparently you are one of the exceptional institutions.

Mr. GALLAGHER. Thank you for that. I think the other 40 percent are of the same class.

The CHAIRMAN. Seriously speaking, if this table which Mr. Whiteside presented is an accurate representation of the facts of business, a 20- or 30-year amortization plan would be one which would exceed by far the average life of the ordinary concern which would be making the loan?

Mr. GALLAGHER. Very true, Senator; but I didn't say 20 to 30; I said 15 to 20; 10 would probably suffice, but not less than that.

The CHAIRMAN. Well, the comment would remain the same on that basis?

Mr. GALLAGHER. I can't question Mr. Whiteside, because after all he knows the answer.

Senator KING. He knows; you don't?

Mr. GALLAGHER. I am willing to learn. Small business today, unlike the large corporations, does not have the flexibility nor the adaptability to adjust themselves to a short workweek when business falls off due to insufficient capital; big business is geared up to operate profitably on a 3-day week when necessary, but small business, because of lack of capital, cannot make any money on a 3-day week. I believe the average small-business man would be able to take care of the major portion of these loans each month who has ability to make better buys through cash purchases and the interest he could save at discounts.

Another feature of these Government loans would be that millions of dollars in back taxes owed by small businesses would be paid up. This would immediately help city, State, and country. Recovery would start immediately because money is changing hands and the spending cycle is starting. Small business, having all assets tied up in plant and equipment, cannot borrow from the banks because the banks demand anywhere from 2 to 3 to 1 quick assets to liabilities.

Gentlemen, if one can show such a ratio, one does not need a bank. The result is to go elsewhere for financing and pay exceedingly high interest rates.

Another fact that has retarded many small-business men is the inability of owners of modern industrial buildings to obtain a mortgage on them. Banks and trust companies refuse to take this property, saying it is a specialized building, or simply they are not interested in making loans on business property. Most one-story buildings are suitable for many varied lines of industry. In the S. E. C. questionnaire the question was asked, How many men could you put to work if small business could secure additional capital? Gentlemen, this could be done very easily and in a very simple manner and an accurate record kept by merely making all borrowers absorb one man off the W. P. A. for every 5 or 10 thousand dollars borrowed, the exact amount to be set after careful study.

If it is desirable to respect seniority rights in unionized firms, that is a matter up to Congress; however, many thousands of firms are

nonunion. I ask you gentlemen to give some serious thought to this absorption of the W. P. A. by small business.

The F. H. A. has done a wonderful job and made it possible for the building of thousands of homes that otherwise would not have been built, and this very same idea could be carried out as regards small-business loans over a long time and amortized monthly because, after all, gentlemen, if some help is not given to small business—and many men who own these F. H. A. homes are dependent on the small business for income for their mortgage payments—how are they going to maintain the F. H. A. payment? I believe it is the only sure way to take the idle money out of the banks and out of the vaults to start the wheels of industry turning.

It might interest you gentlemen to know that in Detroit, which has the largest F. H. A. office east of the Rockies in volume of business, that out of more than 20,000 Government insured mortgages made, only five cases are in the process of foreclosure and three of these cases, I believe, will be redeemed. Gentlemen, that is a marvelous record, and the same can be done on loans to small business.

I trust you gentlemen will do all in your power to aid the small-business men by passage of a bill before this Congress adjourns to set up and immediately authorize a Government agency to guarantee these business loans. Please bear in mind that small business is not only a vital and contributing part of this Nation but it is the one class which has received absolutely no help from the Government and who constitute a large part of the voting populace of this country. I believe, gentlemen, if you will push this worthy cause you will not only have the whole-hearted support of the people you are sent here to represent but you will be instrumental in getting money back into circulation where it belongs because business cannot be good unless there is an ever changing cycle of money. When an evil exists that so vitally hampers Government, the people, and the banks, it is time to remedy that situation by passing adequate legislation to eliminate that evil.

One reads in the New York Times of last Sunday and other papers that they are very keenly interested in findings of the T. N. E. C., and so far to date the answers have not been found. Also in last Sunday's New York Times, a copy of which I have here, one reads that the New Jersey Bankers' Association recommends that the Federal Reserve System and the R. F. C. continue even their present lending "only to the extent that sound and reasonable local credit accommodations cannot be found." My interpretation of that, gentlemen, in plain English, is this: If it is unreasonable or requires any original thinking, it is out of the bankers' class and it is O. K. to let George do it; in other words, the Government.

I think in the above views of the New Jersey Bankers' Association you have the beginning of the answer to the problem you are trying to solve.

At this point I would like to ask you gentlemen one question: What original or helpful ideas have the banking fraternity contributed to recovery? And yet Congress has helped them immeasurably by the F. T. I. C. and F. H. A. Goverment-insured loans enabling them to pile up additional deposits and profits so that the banks take the lines of least resistance and in some measure—a considerable one—go into the small-loan business, on a well-secured basis which

nets them a tidy profit. A name for this type of business might be called distressed loans, necessary under the existing conditions but, gentlemen, hardly constructive or progressive.

I mention the above remarks not as caustic criticism but to point out a breach of faith. When character is removed from the banking circles, and it has been since the bank crash, faith hit an all-time low, that same faith that founded this country. It is easy to criticize, but much more laudable and sincere to get together and meet eye to eye and iron out these difficulties. If the banks contend that the Government is restraining them and the Government believes that the banks are in error, why not appoint a committee and see if a solution cannot be found? Idle money, gentlemen, hinders all concerned. Criticisms and like remarks quoted from the New York Times could be avoided if closer contact is made by the Government, not only with the banks but with small and large business as well.

After all, the Government is dependent upon the welfare of business and dependent upon business for its revenue, so why shouldn't it get in closer contact with the firms from which it gets its revenue?

After all, this being a democratic form of government, why not work in closer harmony for the mutual good of all concerned? If a Government representative walked into our office three or four times a year and said, "How is business?" or, "Do you have any suggestions that I could carry back to our committee in Washington?" I'd feel not only flattered but also feel that I was more a vital part of this Government than under the present conditions. Such a representative would bring back many valuable and worth while and helpful ideas. After all, business still operates through barter and exchange. If the Government goes out of its way to help business, let business be appreciative and work hand in hand with the Government and vice versa.

When one tries to get a small commercial mortgage loan through a bank they say, "No; the Government does not approve of this type of loan." Picture, if you will, gentlemen, what the granting of these Government guaranteed long term commercial mortgages would do. First, it would pay up all back taxes owed by small business, which are, I assure you, plenty.

This gives money quickly to the city and State and eliminates Government loans to cities and States, and the spending cycle is started. Secondly, it gives the small business man additional working capital. This accelerates the spending cycle.

Now, go a step further and grant Government insured long term equipment loans and make possible the discounting of receivables by reasonable rates.

Then try and stop that spending cycle.

Big business and banks are dependent upon small business and small business needs big business. If adverse conditions affect one class, the other class eventually suffers. Small business can and will vitally aid in recovery if given help by the Government and at no cost to the Government. The Government should demand the full cooperation of the banks in this worthy cause.

I read with interest Senator's Mead's proposed bill authorizing Government-guaranteed business loans. I believe that this should be entirely divorced from the R. F. C. and handled by the Securities and

Exchange Commission, because, first, Mr. Jesse Jones, according to the papers, is not in sympathy with small business loans, and secondly, the R. F. C. functions too slowly. The agency handling these loans should pass upon them in 30 days or less.

Inasmuch as this agency would be self supporting, why not give it additional employment. No mention of collateral, outside of that recommended by the R. F. C., was shown in Senator Mead's bill. Immediate action on this bill is most necessary and I urge you gentlemen to do all in your power to rush this bill, or one of a similar nature, through Congress, so small business can benefit by those loans.

I just wish to take this opportunity, Senator O'Mahoney and gentlemen of this most valuable fact finding committee, to say I appreciate the honor of appearing here and testifying in behalf of small business. And gentlemen, I have got a load off my chest and off my mind. Thank you.

The CHAIRMAN. We very much appreciate having the opportunity of listening to you, Mr. Gallagher.

(The witness, Mr. Norman Gallagher, was excused.)

Mr. NEHEMKIS. May I call the next witness?

The CHAIRMAN. Do you want to proceed now?

Mr. NEHEMKIS. If it is your pleasure. I think the next witness will finish in about 30 minutes.

The CHAIRMAN. Call your next witness, then.

Mr. NEHEMKIS. Mr. Ernest Hopkins.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. HOPKINS. I do.

## TESTIMONY OF ERNEST J. HOPKINS, INVESTMENT BANKING SECTION, SECURITIES AND EXCHANGE COMMISSION, WASH., D. C.

Mr. NEHEMKIS. State your name, sir.

Mr. HOPKINS. Ernest Jerome Hopkins.

Mr. NEHEMKIS. And your address?

Mr. HOPKINS. Doylestown, Pa.

Mr. NEHEMKIS. Are you a member of the staff of the Investment Banking Section of the Securities and Exchange Commission?

Mr. HOPKINS. I am.

Mr. NEHEMKIS. How long have you been employed by the Securities and Exchange Commission?

Mr. HOPKINS. Approximately since the beginning of March.

Mr. NEHEMKIS. You have at one time, have you not, Mr. Hopkins, done investigatory work for the State of California, the Commission of Immigration and Housing, and in that connection, compiled official reports for them?

Mr. HOPKINS. Yes.

Mr. NEHEMKIS. And you have likewise been employed by the Federal Government as a special field investigator in connection with the National Commission on Law Observance and Enforcement?

Mr. HOPKINS. Yes; I was.

Mr. NEHEMKIS. And in that capacity you had occasion to file official reports and compile official reports for that body, did you not?

Mr. HOPKINS. Yes.

Mr. NEHEMKIS. Will you state where your particular study was made?

SMALL BUSINESS SURVEY IN FALL RIVER AREA

Mr. HOPKINS. In the small-business investigation—in the town of Fall River, Mass. That was selected as the first town in the small-business survey, partly because of its convenient size, 115,000 population; largely because it was a very typical New England manufacturing community; again because it had the background of the textile industry, an extremely important industry which, as everyone knows, had gone through a terrific liquidation and was partly recovering.

Then, finally, the city of Fall River had been mentioned by the Governor of Massachusetts as outstanding for bringing new industries into the town in a deliberate move to diversify its industrial basis. So, all in all, it seemed to offer a very interesting field for study.

Mr. NEHEMKIS. Has your study developed what emerged as the basic and controlling condition of Fall River?

Mr. HOPKINS. Unquestionably the lack of buying power of the consumer dominated everything. I can perhaps best illustrate that by reading a paragraph that appeared while I was there in a bulletin confidentially circulated among the cotton mill owners and operators. It was a little news note. "A few days ago a local laundryman made mention of the condition of materials running through his laundry." Remember this is a textile manufacturing city. "He said he couldn't recollect when items like sheets, pillow cases, towels, etc., were in such poor condition. He has warned his help to be particularly careful in running these through the wringers and mangles to see that same are not torn, thereby causing damage claims. He has even noted patches on towels, which he calls very unusual. He mentioned this at a laundry convention recently and was surprised by the response of a large percentage of those present who had noted the same conditions."

When one of the outstanding textile-producing and textile-processing towns in the United States has to patch its towels, it seemed to imply that the buying power of the town could not be a very favorable background for small business.

Mr. NEHEMKIS. Were you able, Mr. Hopkins, to find any statistical support for this lack of consumer buying power which you have just mentioned?

Mr. HOPKINS. Yes; I was. The State of Massachusetts reports in its latest published figures that of 23,500 industrial workers, the average wage for a year was $803.54. The National Census of Business for a recent year, not quite the same year, found that of 4,182 retail employees, the average annual wage was $881.38. The chamber of commerce had very complete income statistics for all sources of income in the community and found that the new money brought into town and distributed in the form of pay roll of all types was about $240 per year per unit of population.

The living standard was reflected in the figures for the purchase of meat, for example: Fall River was at the bottom of the list with

$138,000 of meat purchased a year compared with $381,000 for Reading, Pa., a city of equal size.

A long list of such comparative statistics was compiled. The net result on small business was that the gross amount of sales volume in the local distributing stores was less than that of any other city of equal population.

Mr. NEHEMKIS. What would you say the industrial basis was for that pay roll condition which you have described, and did you find, Mr. Hopkins, any prospects in Fall River for alleviating this condition through credit or capital outlays?

Mr. HOPKINS. Well, as regards the main industrial basis, textiles, the answer would have to be negative. The textile industry had undergone this experience. This had been America's foremost spindle city. In the period of 1905 to 1910 the textile-mill valuations were in excess of $100,000,000. The comparative figures today are $12,000,000. In between there had been a deeper pit and considerable recovery. The decline of the textile mills antedated the national business decline. It was taking place from the war on. By 1927 the mills had been weeded out to 36 of the original 110, and many of the great structures were standing vacant at that time.

In 1927 pay roll, however, was $427,000 a week, average, poured into the town by the textile mills. In 1932 that got down one bottom week to $89,000. The recovery since that time in the textile industry has been such, with the shake out of many concerns, that there are 22 surviving mills there today, owned by 14 concerns, and the weekly pay roll is around $325,000.

Now, the difficulty, as affecting consumer buying power, and, therefore, credit worth of local enterprise, is that the mill pay roll is extremely irregular. While I was there, in a single week the mills finding inventories low, suddenly sprang into action. Their pay rolls went up in two weeks from $288,000 to $336,000; they ran 3 or 4 weeks filling up inventory, and then for operating economy, going full blast; kept on, running into speculative inventory, and about the time I left the pay roll was dropping again.

It was not seasonal, it was not anything; it was a whimsical period of production, and it makes bills receivable very much a gamble, through the community. As far as the outlay of new capital is concerned, the mills, in the pit, were taken over by large concerns and are their affiliates, in the main, now. They were thoroughly modernized; they are not obsolete; the production is diversified, and while the industry has probably flattened out and gotten on a stable basis, one could not see any opportunity for expansion capital in the textile industry.

Mr. NEHEMKIS. As I understand it, Mr. Hopkins, Fall River today has other industries beside the textile. What are some of these other industries that you found there?

Mr. HOPKINS. Fall River has done a very interesting thing. When the textile basis collapsed, the citizens purposefully got together to import new industries. There were already some other industries in town, but they were mainly textile appendants, machine shops and the like. The new-industries drive has brought in 11 new small manufacturing concerns from other communities. Hardly any of them, if any, represent really new enterprise; it is a raid on

other communities' older enterprises, concerns being offered strong inducements to move.

A very great many of them were small garment concerns from the New York area. But not all. The last one they landed was a big fish in the form of the Firestone rubber plant, which today has 300 or 400 employees, but may expand to four or five thousand. They expect it to.

Now, the situation regarding the new industries was extremely interesting. Employment was growing; they were taking men off the relief rolls to some extent. The employment, however, in the garment industries was largely female, and jobs for the men was the town's great need. The daughter was often supporting the family. The growth of the individual immigrant enterprise in Fall River was marked. Concerns that had started there with two or three hundred employees, in one case went on to employing as many as 2,000, in another case, 1,200. And there were other sizable concerns. Again, insofar as some of those in New York had been rated as sweatshops, they now were losing their sweatshop character; they were housed in these really splendid old abandoned mill structures; sanitation, light, and all those conditions were infinitely better. There was a technological gain. They had been heavy buyers of new machinery in this expansion that they had undergone.

Accounting for the expansion itself was the list of subsidies, really capital subsidies which they were being given by the town. If the mill they occupied had been taken over by the city for taxes, they were locally tax free. The water supply being municipally owned, they were getting water free or at municipal rates.

Rents, when they paid any, were incredibly low, from 2 to 4½ cents a square foot of space which they would pay 25 cents for almost anywhere else. And another subsidy was in the low wage scales they were paying. The town was job hungry; its resident labor supply was unorganized and would work for anything, and, moreover, their situation was made somewhat worse because certain of these mills at times took advantage of a legal loophole to work the apprentice racket.

That is to say, they would take on girls to tend these garment machines, train them until the end of their apprentice period at the apprentice wage—from $8 to $10 or $12—and then lay them off and get in a new set of apprentices and train them progressively. That was depressing the town pay roll income, and I heard many merchants state that that was one condition that was depriving Fall River of the benefits it had expected to reap in a business way from the importing of these new concerns.

I heard considerable discussion of the possibility of amending the wage-and-hour laws to control that apprentice condition. Fall River likes the wage and hour laws and would stand for higher minima and no differentials favoring other communities.

Mr. HENDERSON. Merchants of the city would?

Mr. HOPKINS. Yes.

Mr. HENDERSON. On account of the increased buying power?

Mr. HOPKINS. On account of the increased buying power. It is completely a pay-roll town and they see that the pay roll is the answer.

Mr. NEHEMKIS. I take it, then, Mr. Hopkins, that the principal business need of the community that you are reporting now is an increased

and regularized community pay roll, and that other means than the present outlay of capital and credit are necessary to effect this? Well, now, turning for a moment to the small business man in that community, you interviewed many of them. Upon interviewing them, what did you find to be the situation?

Mr. HOPKINS. Well, I found that the situation was what one might expect from an income background like that. They were, to begin with—the total size of the retail district was rather disproportionately small for a community of that size. That was reflected statistically also by comparison with other communities; but, then, in addition to that, they were heavily frozen on bills receivable and, in turn, on bills payable. Taking Fall River as a whole, not speaking only of the manufacturing but also of the distributing industries, I have here a table that shows——

Mr. NEHEMKIS (interposing). Will you just pause for a moment and identify that table?

Mr. HOPKINS (reading): Summary of position of 40 Fall River small business concerns.

Mr. NEHEMKIS. Mr. Chairman, I offer this in evidence.

The CHAIRMAN. The table may be received.

(The table referred to was marked "Exhibit No. 629" and is included in the appendix on p. 4098.)

Mr. HOPKINS. Perhaps I need not go into the details of the table, except to state that it represented a pretty good cross section; 40 businesses, naturally, do not tell the entire story; they could only be a test boring at the best, and, of course, there is a chance of inaccuracy in any test boring, but the list was balanced between small manufacturing and food distribution, the building and building-supply business, household supply, retail clothing, and so on, and certain service industries.

A banker whom I consulted on it thought that it was a pretty good community cross section. That could simply be a guess in any case, but the total showing of that was that these 40 concerns with inventories totaling $980,000 were owed by their customers in excess of $1,000,000—one million three thousand seven hundred. That is to say, their customers owed them considerably more than the inventories in their establishments, and in turn they owed their various payables $1,382,000, or more than their customers owed them.

The cash in this situation was a very small factor, $110,000 total cash for 40 concerns. In other words, they were in an extremely nonliquid position, as caught between bills receivable and bills payable, and from time to time that condition was pressing one or another of them out of business.

The last two columns of this table I shall not speak of just at the movement because they come under a later topic. This frozen condition——

Mr. NEHEMKIS (interposing). Let me put a rather blunt question to you, Mr. Hopkins. What did you find that the banks were doing during this period? How were they helping to accomplish this unfreezing process that you indicate as being so necessary?

Mr. HOPKINS. Well, referring to the same table again, you will see that these same 40 concerns had total bank loans of $149,200. Put that in relation to their frozen payable situation, and it would indicate that the banks were doing about an 11 percent job of helping

the merchants unfreeze. The total bank loans extended to local small business would rate, assuming that bills receivable are an asset, very low in relation to the total size of that asset as held by the merchants of the community.

The CHAIRMAN. Did these concerns offer good bankable loans?

Mr. HOPKINS. Obviously, in the judgment of the banks, no.

The CHAIRMAN. What about your judgment?

Mr. HOPKINS. Well, I was there to gather facts and not to sit in the seat of judgment. I should be interested in explaining the attitude of the banks as stated to me very frankly and fairly. The banks tended to blame managerial unwisdom. There was a fundamental distrust in the ultimate ability of the community to pay its debts; that was the hidden actual reason, but at any rate on the surface, banks were extremely critical of the local businessmen. A loan applicant coming to the leading bank there, the B. M. C. Durfee Bank, had to undergo first a thorough-going special audit for which the applicant paid, the auditor being designated by the bank.

He then had to be interviewed at length and make out various questionnaires until literally every angle of his business was known to the bank. On occasion the banks interviewed his creditors and got the picture of the business from that angle, too. Now, the bank was looking, in order to protect its depositors' money, for the carefully selected outlet for investment in which every possible iota of risk was removed. We had two standards, in short, operating there, and an impasse created:

Small business insisting that its receivables were assets, and that its holdings had hypothecable value; and the banks, from the point of view of their depositor funds, finding only that they could relieve the situation under their standards very very narrowly indeed. It was not a situation in which such a person as myself could render a judgment. It was a definite deadlock of two different standards. Meanwhile, business was not getting relief that it needed, and the banks themselves were not making as much money in industrial loans or commercial loans as they might have made.

The banks were extremely liquid. Of a total of $18,000,000 in deposits they had cash of four and three-quarter millions, and total Governments, Federal, State, and municipal, of $6,350,000. Then they had some high-grade securities of one million and three-quarters. Their total liquids were $12,800,000 out of eighteen millions deposits; 70 percent that could be liquidated tomorrow; whereas all their loans, including mortgages, discounts, every other type of loan, personal loans made by one bank, automobile paper by a bank, amounted to only $6,000,000.

Now behind that lay a long story. Back before the local depression which anteceded the national depression, there was a fire that burned the business district of Fall River and two banks had merged into a third, which was not burned.

That bank then found that it had $11,800,000 of commercial loans outstanding, and proceeded at that time to squeeze that list down. It did so so strenuously that at one time the list was down as low as one million and a half after a 7- or 8-year period of reduction of its commercial loans. Those banks, by the way, were liquid at the time of the bank holiday. This process of going liquid had preceded

the bank holiday in Fall River. None of them were seriously embarrassed when the banks closed.

But they had maintained that liquid position since and the commercial loan on the whole is an unliquid loan. I said $6.000,000 worth of commercal loans outstanding, I should have qualified that further—mainly for very short terms, say 30 days to 9 months on loans of working capital; mortgage loans, of course, for a longer period than that. But the whole tendency was to shorten the term.

As I looked into the situation further it was found that the term of a working capital loan to a given business concern frequently did not fit the realistic requirements of that concern. A bank would make its rigid standards—it would loan money for 30 days or 60 days or 90 days. Every separate business has its own lag between the time its money goes out and the time money comes back. That varies with the individual line of business and it varies from time to time within the same business.

I think there was a general failure of the banks to accommodate their working capital, their turn over capital loans, to that situation, because the receivers of loans complained of it.

To dramatize that, the president of the chamber of commerce up there is an undertaker. He told me that when he has a poor man's funeral the poor man's family will pay him in cash as soon as it can. When he has a rich man's funeral, the estate may be tied up in probate proceedings for as much as 2 years, and he can't get the money. A series of rich men's funerals, because they are costly, would bankrupt him. At the same time, he had never found a banking concern that recognized that as a going, steady condition in the undertaking business. That failure of banking to recognize the realistic working-capital needs was illustrated by many other cases.

Mr. Nehemkis. You suggest, Mr. Hopkins, what virtually amounts to an impasse in Fall River—on the one hand a definite need of small business men for financial accommodation, and, on the other hand, an inability on the part of the local banks to get that stream of capital and credit moving. Did you find that there was some way out of this impasse? How, in short, was the small business man of Fall River being financed?

Mr. Hopkins. He was being financed more than anything else by his supply houses.

Mr. Nehemkis. What do you mean by supply houses?

Mr. Hopkins. I mean by the sources from which he got the commodities which he processed or distributed.

Mr. Henderson. That 1.3 million dollars of bills payable in this table you presented was probably by the supply houses as much as anything.

Mr. Hopkins. Sixty-five percent of the total credit in that table was extended by the supply houses.

Mr. Henderson. Any wage payables in that?

Mr. Hopkins. I think not. I recall none. There were some other loans which may have included a very small figure. Other loans would also include some stockholders' loans, but figuring the supply house payables by subtracting all other factors, I found they were approximately 65 percent of all payables in these 40 concerns.

Mr. Henderson. Just a minute. On that basis, what was your total figure of the amount of credit extended by suppliers?

Mr. HOPKINS. It would be 65 percent of $1,382,000. I haven't figured.

Mr. HENDERSON. Close to $900,000.

Mr. HOPKINS. Yes.

Mr. HENDERSON. As against one hundred forty-nine thousand of bank loans.

Mr. HOPKINS. Yes.

Mr. HENDERSON. Roughly, about six times.

Mr. HOPKINS. Yes. And, of course, as I said, that is only a test boring and must not be taken as a definitive study of the entire community, but I think it is a fairly good cross section.

Now, this supply house banking was responsible for whatever expansion was occurring. Any concern that was growing was doing it on credit from his supply sources, his wholesaler or the big concern from which he was buying his goods. From that point of view, and because no bank capital, much, was available, it could be said to have its advantages, but cases I found showed disadvantages that went with it.

Mr. NEHEMKIS. How satisfactory would you say supply house banking was, as you have found it?

Mr. HOPKINS. It is possible to indicate that with a brief reference to some of these cases. For one thing, I found no merchant who could tell me how much that money was costing him. They all assumed as a human proposition that if a creditor extended him time on commodities, that he was paying what was tantamount to interest in the form of a mark-up. The mark-up might be kept down by competition among supply sources, or it might be so much for one individual and so much for another individual, depending on the state of his indebtedness. No one ever knew and no one could find out. One wholesaler whom I interviewed told me that there was no such thing as one price in his particular line of industry, as bearing with his own dealings with his outlets. Thus what would be the interest factor and a definite budgetable factor if it were a straight bank loan, was hidden and buried in these mark-up transactions and could not be statistically isolated.

So nobody knows how much this credit costs the merchant or what its effect on price is when he passes on the price to the consumer.

Again there is the arbitrary time demand factor. A supply house can presumably put the screws on its debtor at any time, and some cases came to my attention where that had been done. In one case an oil distributing concern had displeased the backers behind it by making, at a good price, a distress buy of fuel oil of a rival concern. The buy was meant to advantage the customers and advantage profits. He considered himself a free merchant, in spite of his indebtedness to the supply house that had been largely financing him. On the other hand, he couldn't prove it, but from that time on more and more demands were made. In the end there was a settlement and he is in another business today.

Various incidents of that kind, where supply-house demands were based—well, in a nutshell, they tended to reduce the man who thought himself independent, into the position of an agent of the creditor concern. In the food industries, the secretary of the Retail Grocers Association told me of incidents where an indebted grocer would order a standard brand which his customers demanded. In-

stead of getting that he would receive some off brand which the customers did not know, from the supply house to which he was already heavily obligated. When the bill came, it would be for the brand he had ordered. In a position like that, the outlet was helpless.

Again, a concern distributing household supplies, radio, ice boxes, and the like, was having trouble. The source of supply there would extend credit and there was a very business like proceeding right up to the time when a given ice box or radio would disappear from this outlet's warehouse, but they kept close watch on the warehouse. Then the bill came in. It would normally be an installment sale, which would be paid monthly over a period of a year or two years, and this man was in the situation of having to discount every receivable he got, having to discount these installment accounts, taking the profit out of them by paying the discount, whereas his supply source had a very rigid demand that the bill became payable the minute the ice box or radio, or whatever it was, went out of the store.

Mr. NEHEMKIS. Mr. Hopkins, you have indicated that the small business man in the community which you studied was getting his financial needs met by a device which you have described as supply house banking. Did you find that there were any other agencies which were aiding the small-business man outside of normal banking channels?

Mr. HOPKINS. I did, and that brings me to the end of my picture. There was a large growth of the high interest loan business in Fall River. This graded down from established commercial concerns, whose rates of interest were on a fairly high basis, to outright loan sharks who got as much as 35 percent for their money. And the extent of that business, of course, couldn't be judged. It would take a much better detective than I pretend to be to get the full facts in that situation, but it was notorious in the community. One curbstone operator who had no address at all was estimated by a banker to have $200,000 outstanding in loans; another who was new in the field was estimated to have already fifty thousand out, and so on.

These were individuals who had made little piles of money in the past and businessmen of standing, long time businessmen in the community, were being driven there. I spoke to the head of a commercial finance company who in addition to making loans to small business was receiving fees from small business for managerial advice and services. He stated that the banks were his best friends. The phrase was: "The banks don't want to lend money to business. I do."

This high interest situation was fattening upon the town. I learned of one manufacturer who wanted seventy-five thousand, had to have it in a hurry because his supply house was shutting down on him. He went to a loan concern and was told he could have the $75,000 at a stated rate of interest, 8 percent, but it would cost him $100,000 to get it back. He did not take the loan.

On legal record in the community was a lawsuit in which, to repay a demand note of $30,000, a $3,000 interest, plus service charge, was tacked on at the last minute, and the concern nearly went on the rocks, freeing itself from that situation. It sued later and recovered the indicated balance.

But that situation was so frequently spoken of and so notorious around Fall River that it unquestionably amounted to a leading, outstanding phenomenon of the community—not to say that the community is unique in that respect.

Mr. NEHEMKIS. Mr. Chairman, I regret to have disappointed you. We ran over 8 minutes the time I indicated the witness would have completed his testimony.

The CHAIRMAN. It was very interesting testimony.

Thank you very much, Mr. Hopkins.

The committee will stand in recess until 2:30 this afternoon.

(Whereupon, at 12:40 noon, a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:45 p. m. on the expiration of the recess.

Acting Chairman REECE. The committee will come to order, please.

Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. I am, sir.

Acting Chairman REECE. Will you call your witness?

Mr. NEHEMKIS. Mr. Thomas W. Hellyer.

Acting Chairman REECE. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. HELLYER. I do.

## TESTIMONY OF THOMAS W. HELLYER, SECRETARY AND TREASURER, COLUMBIA FEATHER CO., 1760 NORTH WOLCOTT AVENUE, CHICAGO, ILL.

Mr. NEHEMKIS. Will you state your name, sir, and your address?

Mr. HELLYER. Thomas W. Hellyer, 1760 North Wolcott Avenue, Chicago.

Mr. NEHEMKIS. Are you secretary and treasurer of the Columbia Feather Co. of Chicago, Ill.?

Mr. HELLYER. Yes, sir.

Mr. NEHEMKIS. Will you outline briefly the business of the Columbia Feather Co.?

Mr. HELLYER. We are manufacturers of box springs, mattresses, and pillows, selling to wholesale concerns, department stores, and that type of business.

Mr. NEHEMKIS. What are the total assets of your company, Mr. Hellyer?

Mr. HELLYER. As of November 30, 1938, they were approximately $230,000.

Mr. NEHEMKIS. What do those assets consist of?

Mr. HELLYER. Inventory, capital and surplus, accounts receivable.

Mr. NEHEMKIS. Could you indicate in a general way what your average annual sales are?

Mr. HELLYER. Between $650,000 and $750,000 a year.

Mr. NEHEMKIS. Has your company at various times in the past few years made unsuccessful attempts to secure a line of credit from your local banking connection?

Mr. HELLYER. Yes, we have.

Mr. NEHEMKIS. For what reasons, in your opinion, did the bank decline to make the required loans?

Mr. HELLYER. Well, I think primarily on the basis of our current position as to assets and liabilities.

Mr. NEHEMKIS. As far as you know, no other reasons?

Mr. HELLYER. No.

Mr. NEHEMKIS. Could you indicate in a general way for what purposes the loans were sought?

Mr. HELLYER. The loans were sought to purchase inventories and—well, for the general running of the business.

Mr. NEHEMKIS. Did the company early in 1937 purchase the building which presently houses its operations?

Mr. HELLYER. We did.

Mr. NEHEMKIS. Did the purchase of this building effect a strain on your company's working capital position? Was the company during the summer and early fall of 1937 again seeking loans from its local banking connections?

Mr. HELLYER. Yes; we were.

Mr. NEHEMKIS. What was the result of your endeavor to obtain a loan?

Mr. HELLYER. At that time we were able to obtain secured loans.

Mr. NEHEMKIS. What was the nature of the security?

Mr. HELLYER. Inventories primarily.

Mr. NEHEMKIS. Were they evidenced by warehouse receipts?

Mr. HELLYER. Yes.

Mr. NEHEMKIS. Turning for a moment to your company's business activities, at the time of your credit strain which you have alluded to, did you have several very important customers?

Mr. HELLYER. Yes; we did.

Mr. NEHEMKIS. Some of these customers had been very important ones and significant to your business operations for many years past?

Mr. HELLYER. Yes; they were vitally important to us.

Mr. NEHEMKIS. During November of 1937 did one or more of these important customers to which you have just referred extend a loan to the Columbia Feather Co.?

Mr. HELLYER. They extended advances against future shipments; yes, sir.

Mr. NEHEMKIS. One of these customers or more than one?

Mr. HELLYER. One.

Mr. NEHEMKIS. Just one. What were the terms of that loan?

Mr. HELLYER. I am afraid I don't quite understand. You mean the rate of interest?

Mr. NEHEMKIS. Yes.

Mr. HELLYER. Rate of interest was between 4 and 5 percent.

Mr. NEHEMKIS. Suppose that important customer of yours had not come to your financial aid, what might have happened to your company?

Mr. HELLYER. Well, it probably would have meant the loss of that customer because the financial assistance was in the nature of purchasing materials to properly handle that account.

Mr. NEHEMKIS. What other methods, Mr. Hellyer, of financing has your company employed in recent years—that is, aside from the method of financing you have just described?

Mr. HELLYER. The only other additional way we have had to raise any funds has been by stockholders subscribing to additional shares of stock.

Mr. NEHEMKIS. I wonder if you would describe briefly for the committee, Mr. Hellyer, the process of borrowing money on warehouse receipts.

Mr. HELLYER. Well, it simply consists of going down to the bank and making application for the loan. They, in turn, instruct you to take whatever inventory you want to take over to a bonded warehouse, and the warehouse will issue a receipt for the goods which is turned over to the bank as collateral. Each time you want to withdraw any merchandise on that receipt you have got to take the receipt back to the bank and get a release for a certain amount and pay for whatever amount of goods you are going to take out.

Mr. NEHEMKIS. Do you regard that as a very desirable method of financing small business enterprises?

Mr. HELLYER. It is very undesirable.

Mr. NEHEMKIS. Why?

Mr. HELLYER. It takes a great deal of time to go through all that procedure, and the rate of interest is very high on it. Six percent for a secured loan is a pretty high rate of interest these days.

Mr. NEHEMKIS. As the result of the aid which you received from your principal customer which you described a moment ago, is it not true that your banking connection is willing to aid you with a line of credit?

Mr. HELLYER. Yes. In the past 2 years we have made very marked strides and can get anything we want now.

Mr. NEHEMKIS. But that results from the fact that you were aided primarily in an early period by your principal customer?

Mr. HELLYER. Very much so; yes, sir.

Mr. NEHEMKIS. Mr. Hellyer, do you feel that some mechanics might be provided for intermediate credit facilities in aid of small business enterprises?

Mr. HELLYER. I certainly do, and when I was asked to come down here, I tried to think of some very sensible suggestions. The more I thought about it, the more involved it became. This committee has my heart felt sympathy in trying to work anything out, but there is very definitely a decided need for something to be done.

(The chairman, Senator O'Mahoney, assumed the chair.)

Mr. NEHEMKIS. May I ask, Mr. Hellyer, whether, in your experience as a businessman in Chicago, the method of receiving aid which you have described, namely through an important customer, is widespread?

Mr. HELLYER. I am really not in a position to answer that. I think that it has been done in a great many instances with very large customers. Of course, I think they would have to be tremendous customers to go into a thing of that sort.

Mr. NEHEMKIS. Mr. Chairman, I haven't any further questions to ask this witness at this time.

The CHAIRMAN. Do any members of the committee desire to address any questions to the witness?

Mr. MEYERS. How many employees does your company employ?

Mr. HELLYER. About 100 to 125.

Mr. MEYERS. Is your company incorporated?

Mr. HELLYER. Yes; it is.

Mr. MEYERS. What is your capital structure?

Mr. HELLYER. You mean our capital and surplus?

Mr. MEYERS. Your stocks and bonds.

Mr. HELLYER. Our outstanding capital as of November 30, 1938, was $80,000.

Mr. MEYERS. Do you have any bonds outstanding—stocks and bonds or just common stock?

Mr. HELLYER. Just common stock, which is held entirely by the officers of the company.

The CHAIRMAN. Are there any other questions? Thank you very much, sir.

(The witness, Mr. Hellyer, was excused.)

The CHAIRMAN. Call the next witness, please.

Mr. NEHEMKIS. Mr. S. V. P. Quackenbush, Scranton, Pa.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. QUACKENBUSH. I do.

## TESTIMONY OF S. V. P. QUACKENBUSH, PRESIDENT, SCRANTON CHAMBER OF COMMERCE, SCRANTON, PA.

Mr. NEHEMKIS. Will you state your name and residence, please?

Mr. QUACKENBUSH. S. V. P. Quackenbush; residence, Clark Summit, Pa.

Mr. NEHEMKIS. What is your business, Mr. Quackenbush?

Mr. QUACKENBUSH. Warehousing and leasing of industrial space.

Mr. NEHEMKIS. Besides operating your company, you own and manage several business properties in the vicinity of Scranton, do you not?

Mr. QUACKENBUSH. That is right.

Mr. NEHEMKIS. Those properties at present house many small business enterprises, do they not?

Mr. QUACKENBUSH. They do.

Mr. NEHEMKIS. Does your relationship bring you into intimate contact with these small-business enterprises?

Mr. QUACKENBUSH. Yes.

Mr. NEHEMKIS. To such an extent that you are familiar with their problems of financing?

Mr. QUACKENBUSH. Yes..

Mr. NEHEMKIS. You are also connected with the company which owns and controls a large industrial property in Philadelphia, are you not?

Mr. QUACKENBUSH. Yes.

Mr. NEHEMKIS. And this property is occupied by a number of small businesses?

Mr. QUACKENBUSH. It is.

Mr. NEHEMKIS. Does the same relationship exist between you and these companies as with those companies in the Scranton area?

Mr. QUACKENBUSH. It does.

Mr. NEHEMKIS. And I take it you are familiar with their financial needs, are you not?

Mr. QUACKENBUSH. I am.

Mr. NEHEMKIS. You are presently active in the Scranton Chamber of Commerce?

Mr. QUACKENBUSH. I am.

Mr. NEHEMKIS. You are the president, I believe.

Mr. QUACKENBUSH. Yes.

Mr. NEHEMKIS. In this capacity do you have occasion to examine into the present status of small business enterprises?

Mr. QUACKENBUSH. Yes.

Mr. NEHEMKIS. And to explore their financial needs?

Mr. QUACKENBUSH. Yes.

Mr. NEHEMKIS. As a result of this, I take it, you are familiar with the problems of a great number of small business enterprises in your area.

Mr. QUACKENBUSH. Yes; I am.

Mr. NEHEMKIS. Have you examined into the possibilities of meeting these problems with the existing financial machinery?

Mr. QUACHENBUSH. Yes, sir.

Mr. NEHEMKIS. I take it that in your own business enterprises you have always been able to meet your financial problems.

Mr. QUACKENBUSH. That is right.

Mr. NEHEMKIS. Are you interested in any proposals to establish new enterprises?

Mr. QUACKENBUSH. Yes, sir.

Mr. NEHEMKIS. I suppose here again the problem of financing looms very large, does it not?

Mr. QUACKENBUSH. It does.

Mr. NEHEMKIS. Have you reached any definite conclusions regarding the capital and credit needs of small business enterprises with particular reference to your own locality at Scranton?

Mr. QUACHENBUSH. I have.

Mr. NEHEMKIS. What are those conclusions; will you state them briefly, sir?

### CREDIT NEEDS OF SMALL BUSINESS—THE SITUATION IN SCRANTON AREA

Mr. QUACKENBUSH. I will start by telling you that for the past 25 years, in a rapidly and fundamentally changing business, that I have been able to solve my own economic problems. Whatever I have to say is constructive and not punitive. But what I would most like to do is to run my own business and paddle my own canoe.

From my observations, the credit needs as such are amply taken care of in the eastern part of Pennsylvania, in the territory that I am quite familiar with. What we need is capital, or venture money. As I understand the banking laws, they were set up for credit needs, to take care of commodities, automobiles, and so forth, that accumulated in inventories during certain times of the year and were distributed throughout the balance of the year. In our own business, 10, 15, 20 years ago, the warehousing business, we loaned an average of a million and a half dollars continuously on commodities, automobiles, and so forth, in storage. Today, our loans amount to about $42,000. This is rather fragmentary.

Mr. NEHEMKIS. That is perfectly all right. I am sure you are telling the committee a very interesting picture of your region. Just go ahead.

Mr. QUACKENBUSH. In my judgment, organized banking eliminates local competition. By organized banking I mean clearing house associations, and so forth. The rate of interest in our territory ranges from 6 percent down to a half of 1 percent, which is a spread of 87½ percent in the value of this commodity. I don't know of any other commodity, regardless of the size or the credit standing of the purchaser; where there is a spread of 87½ percent. It might be 2 percent or 3 percent, but not 87½ percent, such as there is in money.

I am interested in one company that has 10 plants throughout southern New York State and eastern Pennsylvania. If we should go to the bank in any one of the cities in which we operate for that local plant to borrow money, they would have to pay 6 percent interest. But the plant we have in Binghamton can go to Elmira and borrow that same money for 3 percent and Elmira goes to Scranton and borrows for 3 percent, and Scranton goes to Wilkes-Barre and so forth, all around the circle, so we get the money for 3 percent but couldn't borrow it in the local community.

The CHAIRMAN. Let me get that, Mr. Quackenbush, a little more clearly. These several plants, 10 in number, are under the same ownership?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. And a plant in a particular town couldn't borrow money in the local bank?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. Well, of course, the plant wouldn't borrow the money; it would be the company?

Mr. QUACKENBUSH. They could borrow the money, but they would have to pay 6-percent interest.

The CHAIRMAN. But one could who owns the plants?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. And am I to understand that this corporation could not go to the bank in the same community in which a particular plant is located and borrow money for less than 6 percent for that plant?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. But could borrow it at less than 6 percent for a plant in another community?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. Well, what is the explanation of that curious situation?

Mr. QUACKENBUSH. Well, one is a local borrower and the other is a foreign borrower.

The CHAIRMAN. Well, it is the same company that is borrowing?

Mr. QUACKENBUSH. I can't answer that, but the fact remains that that is the situation.

The CHAIRMAN. Can you give us a specific instance of just how it happened? Could you give us an instance?

Mr. QUACKENBUSH. Well, the Binghamton plant goes to a bank in Elmira and borrows the money for the Binghamton plant at 3-percent interest.

The CHAIRMAN. What is the name of your corporation?

Mr. QUACKENBUSH. I prefer not to answer.

The CHAIRMAN. I thought you were referring to your own personal corporation.

Mr. QUACKENBUSH. I am referring to a corporation that I have a very heavy stock interest in.

The CHAIRMAN. Then you prefer not to mention it? Very well. I won't pursue that inquiry, then.

Mr. QUACKENBUSH. This gentleman [referring to Mr. Nehemkis] knows the name of the corporation, but I would rather it wouldn't go into the record.

Mr. NEHEMKIS. Will you continue, Mr. Quackenbush, please?

Mr. QUACKENBUSH. We have great difficulty in our territory of raising sums from ten to twenty-five or one hundred thousand dollars to establish commercial or industrial developments that seem to have all the elements of a successful operation. Yet in the Scranton area last year there were $8,000,000 of baby bonds which yield about 1½ percent purchased. My thought of the reason for this is the fear and uncertainty that exists in this country.

Mr. NEHEMKIS. May I just interrupt you, Mr. Quackenbush? Do I understand that in your local community 8 million dollars' worth of baby bonds were purchased by the citizens of that community?

Mr. QUACKENBUSH. That is right.

Mr. NEHEMKIS. That is what you said?

Mr. QUACKENBUSH. Yes, sir.

Mr. NEHEMKIS. Will you continue?

Mr. QUACKENBUSH. I also said that you couldn't raise any money to create or to help local industries, either starting to exist or to expand. I think the reason for this is occasioned by fear and uncertainty, and I think that the uncertainty is largely accounted for because of lack of definite long term government policies, and when I speak of governments, I mean national, State, and municipal. In my mind the banking laws were set up to take care of the credit need that has shrunk to a very considerable extent since the banking laws were written, and the credit facilities have expanded very materially since that time. I also can't help but believe that some of your older bankers, if they had been in other occupations, industrial or commercial, could have seen the needs of the country and had some changes made in their banking laws from time to time, and we wouldn't have to depend upon banking laws that cater almost entirely to credit needs and not to capital or venture money needs.

I also think there is a predetermined prejudice among many banks against small borrowers.

Mr. NEHEMKIS. You are addressing yourself, I take it, Mr. Quackenbush, to the banks in your community, that you are familiar with?

Mr. QUACKENBUSH. The ones that I am familiar with, yes, of course. Now, that prejudice might be race or it might be class of business, or some other bad experience they had years ago, that they are still against anything with that label on. To my mind there are just as able men today making two to three thousand dollars a year as some that are making $50,000 a year, if they had the chance to use their brains and efforts and inventions, and so on, that they possess.

For several years I have been trying to work out something that will help those who are willing to struggle and sacrifice to create production. I had in mind a set up somewhat similar to the Mead

bill. I think the thought back of that is excellent. I think the bill itself is as full of holes as a sieve. I am perfectly willing to tell you why I think so, if you wish to ask me.

I end up by saying that the President recently mentioned the submerged classes, and to my mind the small-business man is one of the leading objects of the submerged class.

Mr. NEHEMKIS. That is all you wish to say, Mr. Quackenbush?

Mr. QUACKENBUSH. Unless you wish to ask me some questions.

Mr. NEHEMKIS. I have no further questions, Mr. Chairman.

The CHAIRMAN. Mr. Quackenbush, have any opportunities for venture capital in your area come to your notice?

Mr. QUACKENBUSH. Many.

The CHAIRMAN. For example?

Mr. QUACKENBUSH. One of the principal instruments for getting anthracite or other coal out of the mines where the veins are shallow is a shaker chute. That is simply a process of putting this chute in a shallow vein and it works like that [illustrating a backward] and forward movement] and shoots the coal from the face of the seam out to the coal cars. That might be several hundred feet. The best shaker chute made was made by Eichoff Bros. in Germany. They have had to discontinue shipping to this country because they couldn't get the iron to make the shaker chute, and send it over here. That happened a year and a half or 2 years ago.

I have been trying to raise capital to produce that product in Scranton, and unsuccessfully so far.

The CHAIRMAN. Is there a market for the chute?

Mr. QUACKENBUSH. Very definite market for it; yes, sir.

The CHAIRMAN. And no one is manufacturing that chute now?

Mr. QUACKENBUSH. No one in this country; no.

The CHAIRMAN. Well, it is not being manufactured abroad, or at least not——

Mr. QUACKENBUSH. It isn't being imported; no.

The CHAIRMAN. Those could be sold if they were available?

Mr. QUACKENBUSH. There is an active demand for them by the coal companies. They want them; they just can't get them.

The CHAIRMAN. Have you the means of manufacturing them?

Mr. QUACKENBUSH. We have plants up there, a plant up there, that is about 90 percent equipped to manufacture this equipment. It would probably take an investment of $25,000 in other machinery to produce this product.

The CHAIRMAN. The banks have not been willing to advance this money?

Mr. QUACKENBUSH. Not so far.

The CHAIRMAN. Have any individuals who desire to venture capital discussed it with you?

Mr. QUACKENBUSH. I can't find those individuals.

The CHAIRMAN. But there are individuals who have idle money, are there not?

Mr. QUACKENBUSH. Oh, yes.

The CHAIRMAN. But here you have a market for a product which you have a right to manufacture, that could be obtained?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. Do you know of any other opportunity?

Mr. QUACKENBUSH. Yes; we have in Scranton the American Record Co. that made, in 1929, 27,000,000 phonograph records. The history of phonograph records was a rise up to 127,000,000 records in 1929 and a drop to 7,000,000 records in 1934. There were 14 people manufacturing—14 concerns manufacturing records in 1929—and now there are but 3 in the field. The sale of phonograph records has increased from 7,000,000 in 1934 to 50,000,000 records in 1938. We have a plant that is 80 percent equipped, built for the manufacture of records, and 80 percent equipped for that purpose.

The plant represents an investment of half a million dollars and $35,000 in additional equipment, plus the needed working capital would start that plant up to employ 400 people, and we can't even get the money to do that.

The CHAIRMAN. Well, to what do you ascribe the reduction of the number of companies which are engaged in producing records from 14 in 1929 to 3 at the present time?

Mr. QUACKENBUSH. The shrinkage in the sale of records from 127,000,000 records in 1929 to 7,000,000 records in 1934.

The CHAIRMAN. Did 11 of these companies fail or were they absorbed?

Mr. QUACKENBUSH. Well, I don't know of any that actually failed, but they were either absorbed or liquidated.

The CHAIRMAN. Well, how many were absorbed?

Mr. QUACKENBUSH. I don't know.

The CHAIRMAN. This survivorship of only three is not due particularly to combinations in mergers but merely to the production of the business?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. But now the business is coming up again?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. But you can get no venture capital?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. May that not be due to a fear that the market is not sufficiently stable to justify the investment of capital?

Mr. QUACKENBUSH. That is not the answer I have gotten in the search for these funds.

The CHAIRMAN. What has been the answer?

Mr. QUACKENBUSH. Well, the people that have the money say, "Why should I invest my money in it? If I make 100 percent on the money it will cost me 50 or 60 percent of it for taxes, and I have got enough." The fellow that wants to get into it and wants to build up a business, he doesn't have the money to put into it.

The CHAIRMAN. In other words, your thought is if the tax policy which would reward the venture of capital were developed the opportunity might present itself.

Mr. QUACKENBUSH. I think the funds are there; yes.

The CHAIRMAN. Are there any other opportunities?

Mr. QUACKENBUSH. Yes; we have a concern manufacturing grate bars for the burning of anthracite coal. I have been in the industrial building game for a great many years, and it has been a difficult problem to find grates that will burn anthracite coal for what we call the intermediate-sized plants, 30 horsepower, for instance. The domestic size is pretty well taken care of, and the large industrial size—there is plenty of equipment to handle that.

Living right in Scranton, I spent 2 years trying to find some equipment that would take care of this intermediate size boiler. Finally I gave it up, and I wrote to an engineer in New York and asked him to find the equipment for me. The second day after I got a letter back saying, "Why, the Carbondale Grate Bar Co. in your own city makes the best equipment of that kind." Well, I finally located them, and while they make this very valuable equipment, they only have a very small office. They have all of their castings, and so forth, made and machined outside of their own place because they don't have the means to finance it. Now, there is an outfit that has something that the country, especially the anthracite burning part of the country, is very badly in need of, but they can't even advertise the fact in our own town that they have that equipment.

The CHAIRMAN. Why can't they advertise it?

Mr. QUACKENBUSH. They haven't the money. They haven't the money to progress the production and the sale of it.

The CHAIRMAN. How much money is needed there?

Mr. QUACKENBUSH. Well, of course, a start in the local community could be made with probably $25,000. It would cost considerably more than that if they are going to extend their operations throughout the entire anthracite-burning area.

The CHAIRMAN. But in your opinion the investment of $25,000 could be very safely made in that particular production?

Mr. QUACKENBUSH. I certainly think it could; yes.

The CHAIRMAN. Without going into any catalog of opportunities, could you venture an opinion as to the amount of capital which might be profitably invested in your area but which cannot now be invested for one reason or another?

Mr. QUACKENBUSH. I would say from five to fifteen million dollars.

The CHAIRMAN. How much employment would that make?

Mr. QUACKENBUSH. I think it would absorb our entire unemployment of about 17,000 people in Lackawanna County.

The CHAIRMAN. You are giving that opinion to us as a considered judgment, after having surveyed the situation?

Mr. QUACKENBUSH. I am.

The CHAIRMAN. You are the head of the chamber of commerce of that community?

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. And the banks are unwilling or unable to cooperate in doing this?

Mr. QUACKENBUSH. I think they are unable to.

The CHAIRMAN. Why unable?

Mr. QUACKENBUSH. Because it isn't credit money, it is capital.

The CHAIRMAN. Because it is venture money?

Mr. QUACKENBUSH. It is venture money; it is capital.

The CHAIRMAN. Are there any other questions?

Representative REECE. In the cases which you mentioned, would the banks be willing or be in a position to participate in the raising of money to start these new enterprises if there were some local people who were willing to come in and put up part of the money?

Mr. QUACKENBUSH. Yes; I am sure they would. In this record situation that I speak of one of the banks agreed to advance 80 percent of it, providing I would endorse it, but of course I couldn't do that with all of them.

Representative REECE. It is not an unusual banking practice, is it, for a banker to expect the local people to put up some money to start a new business?

Mr. QUACKENBUSH. Why, I think that is imperative that it should be done.

Representative REECE. In any of these cases did you discuss with the R. F. C. the possibility of getting advances for the purpose of financing?

Mr. QUACKENBUSH. Not in the last year and a half or 2 years.

The CHAIRMAN. In other words, this is all a question of capital credit, and not commercial credit.

Mr. QUACKENBUSH. That is right.

The CHAIRMAN. Are there any other questions?

Thank you very much, Mr. Witness.

(Mr. Quackenbush was excused from the stand.)

The CHAIRMAN. Who is your next witness?

Mr. NEHEMKIS. Mr. E. L. Nicolay, of Detroit, Mich.

Mr. Chairman, my associate, Mr. Kelley, will examine the witness.

The CHAIRMAN. Very well.

Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. NICOLAY. I do.

## TESTIMONY OF E. I. NICOLAY, PRESIDENT, NICOLAY-DANCEY, INC., DETROIT, MICH.

Mr. KELLEY. Will you state your full name and your residence, Mr. Nicolay?

Mr. NICOLAY. Ernest L. Nicolay; residence, Detroit; business address, 5801 Grandy Avenue.

Mr. KELLEY. You are connected with the corporation known as Nicolay-Dancey, Inc.?

Mr. NICOLAY. That is right.

Mr. KELLEY. You hold the position of president in that corporation.

Mr. NICOLAY. Correct, sir.

Mr. KELLEY. When was it organized?

Mr. NICOLAY. 1927.

Mr. KELLEY. At the time of its organization was it organized to start a new business in which you and one or more associates were interested; is that right?

Mr. NICOLAY. That is right.

Mr. KELLEY. Will you state the nature of that business?

Mr. NICOLAY. We organized to manufacture food products, primarily food specialties, potato chips and shoestring potatoes.

Mr. KELLEY. What are shoestring potatoes?

Mr. NICOLAY. Well, a product very similar to potato chips, different in form.

Mr. KELLEY. Now, briefly, what do you do, buy the potatoes, process them and then pack them?

Mr. NICOLAY. That is right.

Mr. KELLEY. How are they packed, in cans?

Mr. NICOLAY. In cans.

Mr. KELLEY. The record here indicates, Mr. Nicolay, that your business has enjoyed a very rapid expansion in the last few years. Is that correct?

Mr. NICOLAY. It has.

Mr. KELLEY. To the extent of a 25-percent increase every year during the last 5 years?

Mr. NICOLAY. During the last 5 years.

Mr. KELLEY. What are your estimated sales for the current year, if you have an estimate?

Mr. NICOLAY. Well, it would be upward of four hundred thousand.

Mr. KELLEY. At least four hundred thousand.

Mr. NICOLAY. Yes.

Mr. KELLEY. How about the profit side of your business?

Mr. NICOLAY. We have had a profit in each year in the last 5 years.

Mr. KELLEY. Your total assets as shown by your last balance sheet were about $113,000.

Mr. NICOLAY. That is correct.

Mr. KELLEY. In setting up your balance sheet, do you take a reserve for bad or doubtful debts or accounts receivable?

Mr. NICOLAY. Yes; we do.

Mr. KELLEY. Do you depreciate your plant and equipment?

Mr. NICOLAY. Fully.

Mr. KELLEY. So that the figure of $113,000 is the stated value of your assets after reserve for bad or doubtful accounts receivable and after depreciation of plant and equipment.

Mr. NICOLAY. That is right.

(Representative Reece assumed the Chair.)

Mr. KELLEY. Speaking generally, are your books and accounts kept and rendered in accordance with sound accounting practices?

Mr. NICOLAY. We have a certified public accountant come in once a year and throughout the year they are under his direction in accounting procedure all through the year.

Mr. KELLEY. So that when you state that your company has shown a profit in every one of these years, you are reasonably certain that all elements of cost of goods sold have been reflected before the profit is stated?

Mr. NICOLAY. Yes; we are.

Mr. KELLEY. What is the situation with your suppliers of potatoes? Do they extend credit to you or do you have to pay them cash?

Mr. NICOLAY. No; potatoes being a farm commodity, of course, they are sold for cash.

Mr. KELLEY. How about the cans?

Mr. NICOLAY. Well, the particular cans we use the most of the can manufacturers are committed to a policy of prompt payment, to a policy of cash. That is what is known as packers can, and they don't extend terms to anybody on that particular item.

Mr. KELLEY. You do get some credit from some of your other suppliers, don't you?

Mr. NICOLAY. From the people that vend the cooking medium, the cooking fat to us, and others, paper suppliers and the like.

Mr. KELLEY. In view of the fact that you have to pay cash for potatoes and cash for cans and in view of the fact that you have to

process the potatoes and pack them in the cans, I suppose you have a pretty constant need of a revolving fund of working capital.

Mr. NICOLAY. That is correct; we do.

Mr. KELLEY. Do you extend credit to your trade when you sell and deliver your product?

Mr. NICOLAY. For the most part we do.

Mr. KELLEY. Do you sell to both jobbers and retailers or jobbers alone?

Mr. NICOLAY. No; we sell to both.

Mr. KELLEY. Have you had the experience recently of having to turn down orders for your product because of lack of working capital?

Mr. NICOLAY. We did that about sixty days ago.

Mr. KELLEY. What was the amount roughly of the orders that you turn down?

Mr. NICOLAY. Well, the initial orders amounted to about $10,000. Of course, that was only the initial orders. The business would continue to flow to us throughout the year and it probably would have run in excess of that several times.

Mr. KELLEY. In other words, you lost $10,000 of initial orders and you may have lost more or less permanently some pretty good customers.

Mr. NICOLAY. That is correct.

Mr. KELLEY. How much capital, both working and otherwise, do you feel that you could profitably and properly use in your enterprise?

Mr. NICOLAY. We could profitably use about $25,000 in a revolving fund.

Mr. KELLEY. That is straight working capital.

Mr. NICOLAY. Yes.

Mr. KELLEY. Had you had that amount of $25,000 sixty days ago, of course, you wouldn't have had to turn down that business.

Mr. NICOLAY. That is correct .

Mr. KELLEY. What other effect on your operations do you estimate the granting of $25,000 working capital fund at that time might have done? What savings in operations, if any, would you have?

Mr. NICOLAY. Well, it would permit us to take a great many cash discounts which we have to sacrifice for lack of capital.

Mr. KELLEY. You also made reference in one of your statements to our investigators that you had some need for about $15,000 equity capital, in other words, capital over and above that $25,000 revolving fund that you just referred. What benefits would your business experience in your judgment had you had that $15,000 additional capital.

Mr. NICOLAY. Well, at the present time we would have to depend upon the capital for equity capital, that is for plant and expansion, and so forth, on the suppliers of the equipment, automobile equipment, and the manufacturing equipment. Of course, that is worked on a carrying charge basis where the charge is so much additional for the unpaid balance which really amounts to 10 or 11 percent a year, and if we had some equity capital, of course, we could effect a saving there of 4 or 5 percent.

Mr. KELLEY. I take it you have experienced some need for plant replacement in your business from time to time.

Mr. NICOLAY. Yes; we do. When our sales are increasing such as they have we have moved twice in the last 7 years because of outgrowing our space.

Mr. KELLEY. How many people does your company employ now?

Mr. NICOLAY. Well, we are employing about 125 at the present time.

Mr. KELLEY. Now, assuming that there were available to you the total of $40,000 of capital, twenty-five revolving fund plus the fifteen equity that you referred to, how many more people do you estimate that you might regularly and continuously employ?

Mr. NICOLAY. Well, I would estimate within the space of a few months that we would employ at least 35 more.

Mr. KELLEY. Would the supplying of that additional amount of capital or perhaps some greater or less amount operate to reduce the cost of your goods sold?

Mr. NICOLAY. Yes; it would.

Mr. KELLEY. It might conceivably reflect itself in a lower cost to the consumer; is that right?

Mr. NICOLAY. That is correct.

Mr. KELLEY. Is there much competition in your line?

Mr. NICOLAY. We have considerable.

Mr. KELLEY. I noticed in your balance sheet that there was some reference made to the fact that the company owed you and your associate, Mr. Dancey, a certain amount of money. If I recall it, roughly about $7,000.

Mr. NICOLAY. Yes.

Mr. KELLEY. What does that represent?

Mr. NICOLAY. That represents unwithdrawn salaries.

Mr. KELLEY. In other words, you work for the company and left in it that which otherwise you would have been entitled to withdraw as salaries for your respective services?

Mr. NICOLAY. That is correct.

Mr. KELLEY. Have you had any occasion to apply to banks for loans?

Mr. NICOLAY. Yes; we have on a number of occasions, particularly during the last—well, since the first of the year.

Mr. KELLEY. How did you make out?

Mr. NICOLAY. Well, we haven't been able to obtain any line of credit.

Mr. KELLEY. Did they refuse you outright or did they want collateral, or what was the situation?

Mr. NICOLAY. Well, they seemed to indicate that they are committed to a short-term loan, which wouldn't be of any great benefit to us.

Mr. KELLEY. You need a long-term supply of capital for both of the purposes you mentioned?

Mr. NICOLAY. Ninety days seemed to be the limit of the loan which they will make.

Mr. KELLEY. How many stockholders do you have?

Mr. NICOLAY. Just two, Mr. Dancey and myself.

Mr. KELLEY. I take it that your own personal resources have been more or less exhausted in building the business up to the point where it is now.

Mr. NICOLAY. That is right.

Mr. KELLEY. No further questions. Have you any, Mr. Nehemkis?
Mr. NEHEMKIS. No.
Mr. KELLEY. Mr. Chairman?
Acting Chairman REECE. Are there any questions?
I guess there are none. Thank you very much.
(Mr. Nicolay was excused from the stand.)
Mr. NEHEMKIS. Mr. Otto Eisenschiml is the next witness.
Acting Chairman REECE. Do you solemnly swear that the testimony you are about to give in these proceedings shall be the truth, the whole truth, and nothing but the truth?
Mr. EISENSCHIML. I do.

## TESTIMONY OF OTTO EISENSCHIML, PRESIDENT, SCIENTIFIC OIL COMPOUNDING CO., CHICAGO, ILL.

Mr. KELLEY. Will you be seated, Mr. Eisenschiml, and state for the record your full name and residence address?
Mr. EISENSCHIML. Otto Eisenschiml, 1641 South Kilbourn Avenue, Chicago.
Mr. KELLEY. What is your business affiliation?
Mr. EISENSCHIML. I am president of the Scientific Oil Compounding Co.
Mr. KELLEY. That is a concern that does business in the city of Chicago?
Mr. EISENSCHIML. Yes.
Mr. KELLEY. Will you state to the committee how it was that you came to interest yourself in the needs of small business?
Mr. EISENSCHIML. We have a number of small accounts that we serve, that are in weak financial condition. They are practically on a c. o. d. basis with everyone. They are able people and amiable people, capable, but they have no working capital, and I tried to develop a scheme by which these people could obtain credit, either from the banks or from the supply houses, in spite of their impaired financial situation.

The scheme which I developed, which I am about to submit to you gentlemen, is designed to help people get credit, although from a banking point of view and from a general credit point of view they are not worthy of it. It sounds like a Utopian statement, but I think the scheme is founded on sound business principles. To illustrate: the company which we have designated as Company A, which has no credit standing in the community, secures an order for a product which is about to be manufactured. They are unable to fill the order because they are unable to get their raw materials on credit and they have no cash with which to buy. I suggest that the whole transaction be lifted out of the business structure of Company A and trusteed. The trustee will have this order assigned to him, will requisition the necessary materials, will collect the money after the goods have been delivered, and will prorate the proceeds among the people who contributed the materials that went into the manufactured product.

At the present time this scheme is not workable because company A is in financial straits; it may have suits pending against it; it may go into bankruptcy while the transaction is being wound up. In order to prevent this, I suggest legislation that makes the trusteeing of this transaction possible. As soon as the order is secured and the

trustee has been designated (probably the credit manager of the concern most heavily involved) the transaction would be carried on much along the lines of a chattel mortgage. It becomes exempt from attachment on the part of any old creditor. When the money is received for the bill, the trustee receives it. Then the shares go to the people who participate and the remainder which is profit goes to company A, and then becomes subject, of course, to the claims of the old creditors.

The cost of this scheme would be practically nil. There would be no 18 percent per annum, or any such burden put on company A. The trustee would work for nothing because he is a credit man who is looking after the interests of his own firm. The risk involved would be very small. The risk would then consist of the following points: First, the credit rating of the concern to whom this material is being sold. That credit risk is being investigated by six or seven credit men, representing six or seven houses who are entering this transaction. Second, the honesty of the man in charge of company A. He might conceivably misuse the goods entrusted to him for a certain purpose. And third, the ability of the man to manufacture the order satisfactorily, so that the trustee may not find himself in the possession of a lot of rejected merchandise.

Those are the only features that need be considered, and as they are under the joint supervision of several credit men who know the local circumstances, the risk should be very small.

In case of individual small operators like contractors, the scheme would also work very well. To illustrate again, a painter secures the contract for redecorating a house owned by a reputable party. He has no money to buy brushes, paint, and other materials that go into the task which he has obligated himself for. He goes to a store. The store refuses him credit, very properly, because the man is known to owe everybody in town—the butcher, baker, and candlestick maker. To make this scheme work, the transaction is trusteed with an officer of the local bank most likely acting as a trustee for very small compensation, or no compensation at all. When the work is completed, the money is paid to the trustee, who in turn gives the painter what is due him and to his raw-material supply houses what is due them, and thereby enables this operator to continue working.

There would be no further machinery necessary to set this scheme into motion. The enactment of a bill to make a trusteeship like that possible is all that is necessary, and I have found that since the time I was subpenaed to appear here, to the present day, a bill to this effect has been introduced in the House, of which I want to offer a copy in evidence.

Mr. Kelley. You may just identify it by House of Representatives bill number.

Mr. Eisenschiml. It is House bill 6448, dated May 22, 1939.

Mr. Kelley. Have you had actual experience with the working of this trust scheme in practice?

Mr. Eisenschiml. Yes; I have, repeatedly, but always under great danger. I remember one case in particular where a paint and varnish concern in Chicago, which was on the point of bankruptcy, secured an order for two carloads of paint, with an estimated sales value of $20,000. I don't know that anyone in the Chicago district would

have let them have more than $5 worth of merchandise, except against cash on delivery. There was no suit pending against this concern. There seemed to be no danger of interruption from outside sources. The old creditors, who were lined up, agreed to stand by and let this transaction go through. A pool was formed by people who furnished the necessary white lead, linseed oil, and other ingredients that went into that paint. The paint was manufactured, delivered, the money collected by the trustee, with a resulting profit of $2,000 for this concern. It is very seldom that a transaction like this today can be undertaken, because to line up the old creditors and to ascertain that there are no suits pending or lurking in the background is a very difficult and responsible task which ordinarily people do not wish to undertake.

Mr. KELLEY. The actual operation of that scheme on a large scale would involve an amendment to the existing Federal bankruptcy act, would it not, so as to enable the persons who supplied the raw materials that went into that load of paint either to reclaim the paint or reclaim the proceeds of it from any trustee in bankruptcy?

Mr. EISENSCHIML. That is right.

Mr. KELLEY. That is the specific danger right now, is it not?

Mr. EISENSCHIML. That is correct.

Mr. KELLEY. And it fits a situation where the supplier can protect himself by an ordinary chattel lien, like a chattel mortgage trust receipt and conditional bill of sale; is that it?

Mr. EISENSCHIML. Not at the present time.

Mr. KELLY. Of course, I don't understand that you are advocating the extension of the benefits of this scheme to people who are a bad moral risk, are you?

Mr. EISENSCHIML. Certainly not. People who are either inefficient, lazy, or dishonest, this scheme will not cover, and I don't know any scheme that will.

Mr. KELLEY. In other words, like in most commercial transactions, the personal equation still enters into it.

Mr. EISENSCHIML. Positively.

Mr. KELLEY. Have you any questions, Mr. Nehemkis? Mr. Chairman?

Acting Chairman REECE. Are there any questions by the committee?

Mr. O'CONNELL. I didn't understand about the line of business you are in.

Mr. EISENCHIML. Vegetable oils.

Mr. O'CONNELL. As a manufacturer?

Mr. EISENCHIML. As a distributor, mostly.

Mr. O'CONNELL. And to whom do you sell?

Mr. EISENCHIML. To people in the paint and varnish manufacturing line.

Acting Chairman REECE. You may be excused. We appreciate your appearance.

(The witness, Mr. Eisenschiml, excused.)

Acting Chairman REECE. Call the next witness.

Mr. NEHEMKIS. Mr. Edwin J. Trinklein, Detroit, Mich.

Acting Chairman REECE. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. TRINKLEIN. I do.

## TESTIMONY OF EDWIN J. TRINKLEIN, PRESIDENT, AIR-O-CEL INDUSTRIES, INC., DETROIT, MICH.

Mr. KELLEY. Will you state your full name and address for the record?

Mr. TRINKLEIN. Edwin J. Trinklein; residence, 741 West Euclid Avenue, Detroit, Mich.

Mr. KELLEY. What is your business connection?

Mr. TRINKLEIN. I am president of the Air-O-Cel Industries, Inc.

Mr. KELLEY. And where is that located?

Mr. TRINKLEIN. 11616 Cloverdale Avenue, Detroit, Mich.

Mr. KELLEY. How long have you been associated with that company?

Mr. TRINKLEIN. Since 1930.

Mr. KELLEY. It is a corporation, is it not?

Mr. TRINKLEIN. A Michigan corporation; yes.

Mr. KELLEY. Does it have a large or small number of stockholders?

Mr. TRINKLEIN. We have about 18 or 19; mostly held by 3 or 4 stockholders.

Mr. KELLEY. All local people?

Mr. TRINKLEIN. All Michigan people.

Mr. KELLEY. Will you explain to the committee the business that your corporation is engaged in? I think there are two phases to it, if I remember correctly.

Mr. TRINKLEIN. There are. The major part of this company's business is residential insulation.

Mr. KELLEY. Tell the committee for its benefit just what the relationship is of residential insulation to air cooling and heating.

Mr. TRINKLEIN. Since the advent of air conditioning systems in houses and homes, and the oil-burning systems in houses and homes, it has been necessary to obtain some kind of insulation to keep the heat in in the wintertime and to keep the cold out in the winter.

Mr. KELLEY. You mean to keep the cold out in the wintertime and the heat out in the summertime.

Mr. TRINKLEIN. That is right.

Mr. KELLEY. That is something of a new industry, is it not?

Mr. TRINKLEIN. It is a very new industry, because otherwise the systems would be too expensive; they could not be used.

Mr. KELLEY. So that the installation of the type of insulation that your company turns out effects a saving for the home owner in his air cooling and heating bill; is that right?

Mr. TRINKLEIN. Yes; it effects a large saving and gives him added comfort besides.

Mr. KELLEY. You have felt the need for some more capital in your business recently, haven't you?

Mr. TRINKLEIN. Yes; we have.

Mr. KELLEY. It has been expanding satisfactorily?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. And in '36 and '37 you had a profit, didn't you?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. Now, in '38 you had a slight loss?

Mr. TRINKLEIN. We did.

Mr. KELLEY. Before we turn to that could you tell us roughly the value or amount of your total assets as stated on your latest balance sheet?

Mr. TRINKLEIN. It is about $180,000.

Mr. KELLEY. Is that after the deduction of reserves for bad or doubtful accounts receivable and a depreciation reserve for plant and equipment?

Mr. TRINKLEIN. It is.

Mr. KELLEY. So that you are satisfied that it is not an overstatement of your assets.

Mr. TRINKLEIN. Yes.

Mr. KELLEY. You have made two efforts to obtain the capital that you feel that you need by the issuance of additional common stock in your corporation, is that right?

Mr. TRINKLEIN. Yes, sir.

Mr. KELLEY. And the first time did you try it directly, or through banker or broker?

Mr. TRINKLEIN. Tried it through a broker.

Mr. KELLEY. How much did you offer?

Mr. TRINKLEIN. We offered $110,000 in 1936.

Mr. KELLEY. And how did you make out?

Mr. TRINKLEIN. Sold only about $1,800 worth, or rather the broker did.

Mr. KELLEY. Later, in 1937, you made another attempt directly, is that right?

Mr. TRINKLEIN. We did.

Mr. KELLEY. And how much stock did you offer on it that time?

Mr. TRINKLEIN. Fifteen thousand.

Mr. KELLEY. And how did you make out that time?

Mr. TRINKLEIN. Sold hardly any.

Mr. KELLEY. Now, have you had to turn down business because of the lack of the capital that you tried to raise?

Mr. TRINKLEIN. We did. At times we had to stop the salesmen from selling.

Mr. KELLEY. Well, now you actually install this insulation in new construction as it is going up?

Mr. TRINKLEIN. Yes; in new construction.

Mr. KELLEY. You are protected for the amount of your installation, both material and labor, by mechanics' liens under the law of the State where you operate, isn't that right?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. Your problem, then, is to finance yourself with respect to a particular job between the time when you actually complete the installation and the time when the owner or builder gets his first or next payment under whatever building and loan mortgage he has on the place, is that it?

Mr. TRINKLEIN. Yes, sir.

Mr. KELLEY. Sometimes that is pretty appreciable space of time, isn't it?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. And mechanics' liens are accepted nowhere by bankers to the best of your knowledge as security for advances of working capital?

Mr. TRINKLEIN. Not to my knowledge.

Mr. KELLEY. So that is about the crux of your problem, isn't it?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. At least on the installation phase?

Mr. TRINKLEIN. That is right.

Mr. KELLEY. You do the job; you have a lien to secure you; but, as far as working capital is concerned, you might just as well not have the lien to begin with?

Mr. TRINKLEIN. That is right.

Mr. KELLEY. Now, you also have another line, as I recall it. Will you tell the committee what that line is?

Mr. TRINKLEIN. We have developed within the last 2 years a new asphalted board, which is used as a base for the application of asphalt and asbestos shingles used in modernization work; there is a lot of that work going on in the country and our board suits and adapts itself very well for that particular purpose.

Mr. KELLEY. Now, after you developed that board to a point where it could be produced on a commercial scale, I suppose you had to send salesmen out on the road to drum up some trade; is that right?

Mr. TRINKLEIN. Yes; we did.

Mr. KELLEY. And you had to finance that out of your internal resources, as well as your ordinary insulation-installation operations?

Mr. TRINKLEIN. We had to take part away from the contracting business to develop it.

Mr. KELLEY. And in part would you say that the promotional expense of sending salesmen on the road to promote your new products accounted for part of your loss in 1938?

Mr. TRINKLEIN. Yes; there was quite an amount. I might say all expenses were charged off as expenses; they were not capitalized.

Mr. KELLEY. Now, do I understand it correctly that you have applied to a bank, a factor, a finance company, and two credit companies for loans or advances?

Mr. TRINKLEIN. Yes; we have.

Mr. KELLEY. And how did you make out there?

Mr. TRINKLEIN. Not very well; they are not interested in loaning to home builders and contractors.

Mr. KELLEY. In other words, there again mechanics' liens are of no use to you as collateral?

Mr. TRINKLEIN. They are of no use to us.

Mr. KELLEY. Did you also make application to the Reconstruction Finance Corporation?

Mr. TRINKLEIN. I did.

Mr. KELLEY. You made it and renewed it several times, didn't you?

Mr. TRINKLEIN. We made it, were turned down and asked for reconsideration at two different times—turned down both times.

Mr. KELLEY. So that the result was the same as when you started it was turned down?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. As a matter of fact, in your area there has been a great stimulation of one family residences by the Federal Housing Administration program; is that correct?

Mr. TRINKLEIN. Yes, sir.

Mr. KELLEY. So that normally your business now should be expanding by leaps and bounds?

Mr. TRINKLEIN. It should be expanding materially.

Mr. KELLEY. Has your insulation installation met with more or ess general approval by the people who bought—who used the ouses?

Mr. TRINKLEIN. I think we have one of the very best insulations or a moderate home, because it is cheap; by that I mean it is low n cost and is very effective.

Mr. KELLEY. And do you think that most of your customers feel he same way about it?

Mr. TRINKLEIN. They are very well satisfied; very well.

Mr. KELLEY. How many people do you employ now in both phases f your business, both in the insulation and this asbestos baseboard?

Mr. TRINKLEIN. Thirty-four.

Mr. KELLEY. How much additional capital do you think you could roperly use in your business?

Mr. TRINKLEIN. Fifteen to twenty thousand dollars.

Mr. KELLEY. For working capital?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. In other words, a revolving fund to finance these perations?

Mr. TRINKLEIN. That is it.

Mr. KELLEY. And if you had that amount of working capital, what o you think you could do in the way of expanding your pay roll y hiring more people?

Mr. TRINKLEIN. We could hire considerably more men. I would ıy up to about 20 more men.

Mr. KELLEY. And of course, if you continued to be successful, then ıdefinitely upward?

Mr. TRINKLEIN. Yes, sir.

Mr. KELLEY. Now, you have had some business with finance com- anies, too, haven't you?

Mr. TRINKLEIN. We did.

Mr. KELLEY. You still maintain credit relations with that ɔmpany?

Mr. TRINKLEIN. We do.

Mr. KELLEY. How much does your money cost you?

Mr. TRINKLEIN. It costs us 1 percent every 15 days; that would be percent a month, or 24 percent a year on the amount outstanding ı the 1st and 15th day of every month. For any intervening pay- ents made on that indebtedness we do not get any credit. And they ıly advance 60 percent of the amount of the invoice.

Mr. KELLEY. Do they take an assignment of the mechanics' liens?

Mr. TRINKLEIN. No; they don't.

Mr. KELLEY. Just advance you 60 percent of your invoices; and the sult is, you are paying 2 percent a month or 24 percent a year for ɔur money?

Mr. TRINKLEIN. Yes, sir. We do furnish them with a completion rtificate so they have evidence that the work is done.

Mr. KELLEY. Well, do you mean by that that you can't even get ıat 60 percent out of them until the whole job of construction is ɔne, or your part of the job?

Mr. TRINKLEIN. They finance each individual job. We do not take ıvoices to them to get a draw before the work is done. We have ) complete a job before we get our money.

Mr. KELLEY. Do you have to wait until all the rest of the work on the house is done?

Mr. TRINKLEIN. No.

Mr. KELLEY. Does the finance company require from you any annual premium for credit indemnity insurance, or anything of that kind?

Mr. TRINKLEIN. Yes; they do.

Mr. KELLEY. How much does that amount to; do you recall?

Mr. TRINKLEIN. I think ours is $60 a year.

Mr. KELLEY. Suppose one of these accounts goes bad, who does the collecting? In other words, who forecloses the lien?

Mr. TRINKLEIN. Do you mean with relation to the finance company?

Mr. KELLEY. Yes.

Mr. TRINKLEIN. The agreement or contract with them is—they carry accounts 60 days from date of invoice. If, at the end of 60 days, the account is not paid, we have to pay them back the money that we borrowed, or substitute a new account in like amount, which is not 60 days old.

Mr. KELLEY. In other words, the finance company doesn't take any of the burden or risk of collecting your invoice?

Mr. TRINKLEIN. Doesn't take any risk.

Mr. KELLEY. If the job goes bad and you want your money you can foot the bill for foreclosure on the mechanic's lien, is that it?

Mr. TRINKLEIN. Yes.

Mr. KELLEY. After you have paid them interest at the rate of 2 percent per annum plus a premium on a credit-indemnity bond?

Mr. TRINKLEIN. And we personally have to guarantee the accounts.

Mr. KELLEY. I note here that you want about 15,000 to 20,000 of additional working capital, plus 31,000 more of equity capital. Now assuming that you got the total of those amounts, namely, the 15 plus the 31, point out to the committee, if you will, what savings you think you could effect in your operations.

Mr. TRINKLEIN. We could effect quite a saving in interest charges. We could effect quite a saving in operation by way of discounts. The major thing is that we could get the business which is in sight and spread the overhead over that additional amount, which would give us a very good profit. It takes so much business to carry your overhead, and above that profit is larger.

Mr. KELLEY. Would it enable you to spend a little more money in hiring necessary experts to try to improve your product a bit, as changing conditions might require?

Mr. TRINKLEIN. Well, we do that continuously ourselves. As a matter of fact, we are experimenting with a new product now. We always have our mind on new products to be brought out on the market.

Mr. KELLEY. Now, does the company owe you or any of the other officers any money for unpaid salaries?

Mr. TRINKLEIN. Yes; it owes me for unpaid salaries and advances which I have made out of my own funds to keep the company going a few years back when things started to come back.

Mr. KELLEY. Now, is there much competition in the line that you are engaged in at the moment?

Mr. TRINKLEIN. There is.

Mr. KELLEY. In the area in which you are located, of course?
Mr. TRINKLEIN. Yes; there is.
Mr. KELLEY. Both in the installation and in the board?
Mr. TRINKLEIN. Not so much in the board.
Mr. KELLEY. That is too new?
Mr. TRINKLEIN. That is too new, and we have the edge on others.
Mr. KELLEY. Now, in your opinion, is all of that competition provided by other reputable businessmen in legitimate competition with you or do you think that you are suffering from methods of unfair competition?
Mr. TRINKLEIN. We are suffering from methods of unfair competition.
Mr. KELLEY. And the existence of that unfair competition naturally tends to make it just that much the harder for you to get more money into the business; is that right?
Mr. TRINKLEIN. It does, precisely.
Mr. KELLEY. Now, would you mind outlining for the committee as briefly as you can the kind of unfair competition that you claim you suffer from?
Mr. TRINKLEIN. We have, for instance, what we call the smaller contractors. They go out and bid on a job. Many a time they do not get the job, but they put in a figure. Now, in order for us to get the job we have to come down in our price, which is a fair price. The most important part of all is we are a firm which pays taxes; we pay Federal and State Social Security taxes, and other taxes. The other smaller concerns are not even corporations; they are just individuals; they come and go; they pay no taxes, as far as we know. As a matter of fact, they boast about it. They pay their labor about 40 to 50 percent less than we do; they hire labor from the South, as we understand it. And against those people we have to compete. Of course, we have the edge on them; whenever the builder gets in a jam he calls us up, because we can furnish the service. That is the reason we get a lot of jobs that we otherwise would not get for price.
Mr. KELLEY. What is your experience as to the kind of a job that this competition that you complain about furnishes? Are their customers satisfied or do you get calls for help?
Mr. TRINKLEIN. Unfortunately, the customer does not see what goes into the building. After the insulation goes in; in many a case it is lathed and plastered the following day. The customer does not see it very often, although we have quite a few complaints where customers complained where a product had gone in which was similar to our name. They sold the product under a name which was similar to ours. We have a federal trade-marked name for our product, and we had a case in court recently about that. As a matter of fact, it is still pending. They put that material in, and the customer believes they are getting the genuine product, whereas they are not.
Mr. KELLEY. Well, are you prepared to state that as far as quality is concerned, quite apart from the trade mark or the label by which it is known, that the type of product furnished by the competition that you are complaining of is inferior to the kind that you can furnish?
Mr. TRINKLEIN. It is very much inferior, very much.
Mr. KELLEY. Any questions, Mr. Nehemkis?

Mr. NEHEMKIS. Mr. Trinklein, would you say in your experience and contact with other businessmen in Detroit it is a fairly widespread practice for small business men to have recouse to finance companies for their normal capital and credit needs?

Mr. TRINKLEIN. Well, it is a practice, I think. Whether they can get it, I don't know; I know a lot of them can't get it.

Mr. NEHEMKIS. But in your experience and association with other businessmen, the practice is fairly widespread, would you say?

Mr. TRINKLEIN. Yes.

Mr. NEHEMKIS. Do the businessmen of your community go to finance companies in Detroit, or do they go to Chicago?

Mr. TRINKLEIN. As far as I know—I don't know so many cases, but those I know go to Detroit; that is locally.

Mr. NEHEMKIS. Thank you very much, Mr. Trinklein.

Mr. O'CONNELL. What was the amount of the loan application that you made to R. F. C.?

Mr. TRINKLEIN. The original amount was for $40,000.

Mr. O'CONNELL. And to what use did you intend putting the money? Some of it for working capital and some for capital expense?

Mr. TRINKLEIN. Yes; precisely.

Mr. O'CONNELL. What was the reason given for the rejection?

Mr. TRINKLEIN. They stated that the collateral which would be acceptable to their corporations' lending requirements would not be sufficient for a loan in the reduced amount requested. In other words, at that time, in asking for reconsideration, after talking to them, they told me to try a smaller amount, and that is what they meant by the reduced amount.

Mr. O'CONNELL. What collateral were you offering?

Mr. TRINKLEIN. Accounts receivable. You see, we have to carry builders anywhere from 2 to 6 months. We have to pay our labor weekly. We have to pay for a large part of the material.

Mr. O'CONNELL. Is there any question of offering a physical mortgage on your properties, or are they mortgaged?

Mr. TRINKLEIN. There is a small mortgage, but they wouldn't be interested.

Mr. O'CONNELL. So you expected—you offered accounts receivable as collateral for even the portion of the loan that you expected to use for capital?

Mr. TRINKLEIN. Yes.

Acting Chairman REECE. Any other questions? If not you may be excused, and we thank you very kindly.

Mr. TRINKLEIN. Thank you.

(Whereupon the witness, Edwin J. Trinklein was excused.)

Mr. NEHEMKIS. Mr. John Ferris is the next witness.

Acting Chairman REECE. Do you solemnly swear that the testimony you are about to give in these proceedings shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. FERRIS. I do.

## TESTIMONY OF JOHN P. FERRIS, TENNESSEE VALLEY AUTHORITY, KNOXVILLE, TENN.

Mr. NEHEMKIS. Will you state your name and address, please?

Mr. FERRIS. John P. Ferris, Knoxville, Tenn.

Mr. NEHEMKIS. What has been your past occupation, Mr. Ferris?

Mr. FERRIS. I have been a mechanical engineer, most of my work having been in industry. Until 7 years ago I was chief engineer of the Oil Gear Co. in Milwaukee, Wis. In 1932 I served as secretary of the business economics committee of the Executive Council of the State of Wisconsin, advisory to the Governor. Later in the same period I served as secretary of the land use committee, also of the Executive Council of the State of Wisconsin.

The business economics committee made extensive studies of opportunities for local industry in the State of Wisconsin, based on the use of local resources. For the last 2 years I have been director of the agricultural industries department of the Tennessee Valley Authority. I joined the staff of the Tennessee Valley Authority in 1933, and during this period we have been investigating the industrial opportunities, particularly on the use of farm crops in the Tennessee Valley region.

(Senator O'Mahoney resumed the Chair.)

Mr. NEHEMKIS. What was the nature of these investigations of industrial opportunities, Mr. Ferris?

Mr. FERRIS. Well, first, there were engineering studies of the practical means of processing raw materials in that area, supplemented by engineering economic studies to indicate whether or not such processing methods were practical. Secondly, we had to make an attempt to analyze the underlying conditions in the region which would determine whether or not, particularly local industries were practical.

### NEED FOR CAPITAL AND CREDIT BY SMALLER BUSINESS ENTERPRISES IN TENNESSEE VALLEY AREA

Mr. NEHEMKIS. Are you prepared to discuss with the committee, Mr. Ferris, the financing possibilities for small business enterprises in the Southeast?

Mr. FERRIS. Before I answer that question permit me to remind the committee that I am not a financial expert nor an economist, but only an engineer. I have been interested for 5½ years in the question of the opportunities for financing the smaller enterprises in the Tennessee Valley region. It has seemed to me that there are cases where easier financing would be of assistance. But in my opinion it would not bring about a sound development.

Mr. NEHEMKIS. How do you arrive at that conclusion?

Mr. FERRIS. Because the Tennessee Valley region is a part of the Southeast and the Southeast is faced with some very fundamental questions. In my opinion——

Mr. NEHEMKIS (interposing). I am going to ask you to pause and forgive me for interrupting, but before we go further, for the sake of clarity, when you speak of the Southeast, precisely what States and what area do you have in mind?

Mr. FERRIS. When I speak of the Southeast, I shall refer to the States of Virginia, Kentucky, Tennessee, South Carolina, North Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Arkansas. When I speak of the South, the states of Oklahoma and Texas, normally included in the Southwest, will be included in the term the South as a whole.

Mr. NEHEMKIS. The definition that you have just given is one that is generally followed and accepted?

Mr. FERRIS. I believe so. It happens to be the definition that the recent N. E. C. report on the Southeast was based upon.

Mr. NEHEMKIS. Yes; will you excuse the interruption and proceed, Mr. Ferris?

Mr. FERRIS. Certainly. Your question related to the extent to which easier financing might open opportunities for local industry in the Southeast. In asking this question it would seem, perhaps, that your committee may sense that one of the Nation's new agricultural and industrial frontiers lies in that region and in directing particular attention to the Southeast the committee will probably wish to have in its records some facts concerning the barriers to the growth of new business in that area. It would seem, I think, to most people that the cream-skimming type of industrial development in the United States may have reached a limit and that in the future the Nation may have to look inward for business expansion. Many people believe that there is what might be called a new frontier in America replacing the old westward-moving geographical frontier, and that this new frontier is a greatly raised standard of living commensurate with our natural resources. If so, much of it lies in the South. New markets beckon as the standard of living in the South increases. Capital would be required in large amounts and new employment would be created.

To this observer it seems that improved credit facilities alone could hardly overcome the barriers which impede any rapid opening of new opportunities in that region.

I referred a minute ago to these underlying forces and I would like to say that it has seemed to me that many of them have been at work for 2 or 3 centuries shaping the South of today, that they are still at work and act as brakes upon the growth of commercial and industrial enterprise; yet in spite of them, very encouraging progress has been made. These underlying forces total up to the fact that in the Southeast about 20 percent of the Nation's population lives under what some people have called a provincial or raw materials economy, although the Southeast is copartner with the rest of the Nation politically.

What does this mean? Primarily, that for some 3 centuries practically all of the commodities that have been shipped from the Southeast have been sold at low world-market prices in competition with the cheapest labor available anywhere in the world and practically all of the clothing, furniture, and agricultural implements and other goods needed for living were purchased in Europe or, later, in the Northeast. The South accepted this situation in the early days willingly, not realizing how inevitably it would bring difficulties. By and large the economic relationship between the Southeast and the rest of the Nation is very similar to the relationship between India and Great Britain. How did it come about?

| STATE | PER CAPITA SPENDABLE INCOME |
|---|---|
| ALABAMA | 214 |
| FLORIDA | 430 |
| GEORGIA | 410 |
| KENTUCKY | 280 |
| LOUISIANA | 298 |
| MISSISSIPPI | 219 |
| NORTH CAROLINA | 287 |
| SOUTH CAROLINA | 234 |
| TENNESSEE | 296 |
| VIRGINIA | 273 |
| UNITED STATES | 522 |

First, there were natural resources easy to exploit. There was virgin soil. The early settlers required no great effort to obtain these resources and there was an avid market waiting for them all over the world.

The CHAIRMAN. May I interrupt you so that I may make note on the record that Congressman Voorhis of California has joined us this afternoon to listen to the testimony?

Mr. FERRIS. Naturally, with Europe and the Northeast anxious to get these raw products, cotton and tobacco, indigo, and so forth, and when they were easy to get, soil and climatic conditions being favorable, the early settlers felt that they were in clover. There were a few people in the Southeast early who were interested in manufacturing. It may be somewhat surprising to recall the fact that in 1810 the States of Georgia, South Carolina, and Virginia manufactured more textiles than all of the rest of the country put together. They were in the manufacturing field before the first textile mill in New England.

However, this exchange of raw materials for finished products put upon the southern people a pressure to exploit their natural resources rather rapidly and, as it affects land, here lies the genesis of our soil problem. Inevitably the South suffered as this exchange continued decade after decade.

Mr. NEHEMKIS. Mr. Ferris, at this point I should like you to identify the map which is now being shown you.

Mr. FERRIS. This exhibit is entitled "Spendable Income Per Capita in the Southeast by Counties." It was published in Sales Management, New York, April 10, 1937. It represents a record of the spendable income in every county of some of the Southern States; Louisiana and Arkansas are missing on this map.

Representative REECE. Just what do you mean by spendable income, if you please?

Mr. FERRIS. Mr. Reece, I cannot define it exactly. Roughly, speaking, it is the amount of cash money per capita which goes into the channels of trade. It does not include goods consumed on the farm.

Mr. NEHEMKIS. In your opinion, Mr. Ferris, is the basis for this map acceptable? Would you say the sources were authentic?

Mr. FERRIS. I should. It is the guide of many large corporations in the United States in planning their sales in the South.

Mr. NEHEMKIS. I offer this map in evidence, Mr. Chairman.

The CHAIRMAN. The map may be received.

(The map referred to was marked "Exhibit No. 630" and faces p. 3925.)

Mr. FERRIS. The suggestion which we have referred to——

The CHAIRMAN (interposing). Let me interrupt you, please. It will be rather difficult to reproduce this because the diagram shows colors, so that reprinted in black and white, the various classifications in which the several counties are divided will not appear.

Representative REECE. But, Mr. Chairman, don't the numbers indicate, however, more in detail than what the color scheme undertakes to do?

The CHAIRMAN. Yes; I observe that it does. I hadn't noticed the numbering.

Mr. FERRIS. That map, Mr. Chairman, might be supplemented by the general statement concerning the income situation in the South-

east for the record. In 1937 the N. E. C. reports $314 per capita average income as against $604 average for the United States as a whole. In the opinion of this witness, this income situation in the South is a demonstration of the difficulties which have been referred to. They have been widely publicized in recent private and governmental studies, such as the N. E. C. report.

I think it should be considered that the income situation is not the problem, but rather a reflection of the problem. It further carries over into the well known facts of extensive soil erosion in the Southeast, low wages, inadequate funds for schools, and so on. They are not the fundamental problems. They are the reflection of the problem resulting from two or three centuries of exchange of raw materials for finished products with the rest of the world, in the opinion of this witness.

Notwithstanding these facts, the Southeast has made very great economic progress in recent years, and it seems to this witness that it has been more rapid than in many other large regions of the country. In the first place, dependence on the cotton crop has decreased. Diversification of agriculture has made enormous strides. Perhaps the most dramatic illustration is in one of the southern States, Georgia, where in 6 years, between 1930 and 1936, nearly a million and a half acres of land devoted to cotton, or 25 percent, was shifted to production of animal and food crops, a very dramatic success in the change from a one-crop system to diversification.

Or, looking at it as a matter of the total income in the Southeast, at the turn of the century, that is about 1900, the South was dependent on cotton for its income to the extent of about 19 percent, and its total income was about $2,000,000,000. In 1935, the dependence upon cotton had decreased to 12 percent—obviously, marked progress in getting away from the one crop cotton system.

In that year the total income was $6,000,000,000. Half of that increase was due to expansion in processing and manufacturing.

Another dramatic indication of the progress that the Southeast has made is the fact that it has kept pace in these last 35 or 40 years with the rest of the Nation industrially. In 1909 it had 9.2 percent of the Nation's manufacturing; in 1937, I believe it was 9.6 percent. So the picture is far from bleak when these astonishing evidences of progress are taken into consideration.

One of the resources which promises to form a basis for great economic progress in the future is the leadership available in the South. There are many men of few doctrines, practical men, who are absolutely determined that the low income situation which we have referred to, and its evidences, are to be conquered. They are inconspicuous and working quietly to find the practical ways of doing so.

The Nation as a whole has much to gain as the South conquers this situation under its own leadership.

Let me call attention merely to some of the possibilities of increased use for the products of other areas. The State of which I am a resident is Tennessee. In a recent year our consumption of manufactured meat products was 5 pounds per capita. In Ohio the figure for the same year was 44 pounds. I think those, if there are any in this room, from Illinois and Missouri, where there are meat-packing interests, will recognize how inevitably a rise in income in the South will reflect itself in sales of the products of their industries,

and the same thing is true in many other fields. It seems, therefore, that this problem of the South is one of national interest.

To answer constructively the question which I have been asked, it seems necessary to relate each statement I shall make to the concrete underlying forces which have been summarized briefly. It is necessary to make some analysis of these forces. Mere recapitulation of their well known symptoms has done little good in the past. In the opinion of this witness the mere availability of industrial credit would not be sufficient to open up any new business frontier which may exist, although credit is definitely an important problem.

The most fundamental phase of the situation facing business in the Southeast is an unbalance between industry and agriculture.

Mr. NEHEMKIS. Mr. Ferris, will you pause for a moment to identify the documents which I wish to offer now?

Mr. FERRIS. This map represents the concentration of manufacturing in the various counties of the United States. Its title is "Leading industrial counties in relation to the 1930 United States geographic center of population."

Mr. NEHEMKIS. I offer that in evidence.

(The exhibit referred to was marked "Exhibit No. 631" and appears on p. 3928.)

Mr. FERRIS. The second exhibit is entitled, "Tennesee's Industrial Expansion and its Relation to Economic Independence." It is a technical paper by Dean Ford L. Wilkinson, of the college of engineering, University of Louisville, Ky.

Mr. NEHEMKIS. I offer that in evidence.

The CHAIRMAN. It may be received.

(The document referred to was marked "Exhibit No. 632" and is included in the appendix on p. 4099.)

Mr. FERRIS. The third is entitled "Industries in Which the South Is Deficient." It is a report of the Agricultural Industries Department of the Tennessee Valley Authority, dated 1935.

Mr. NEHEMKIS. I offer it in evidence.

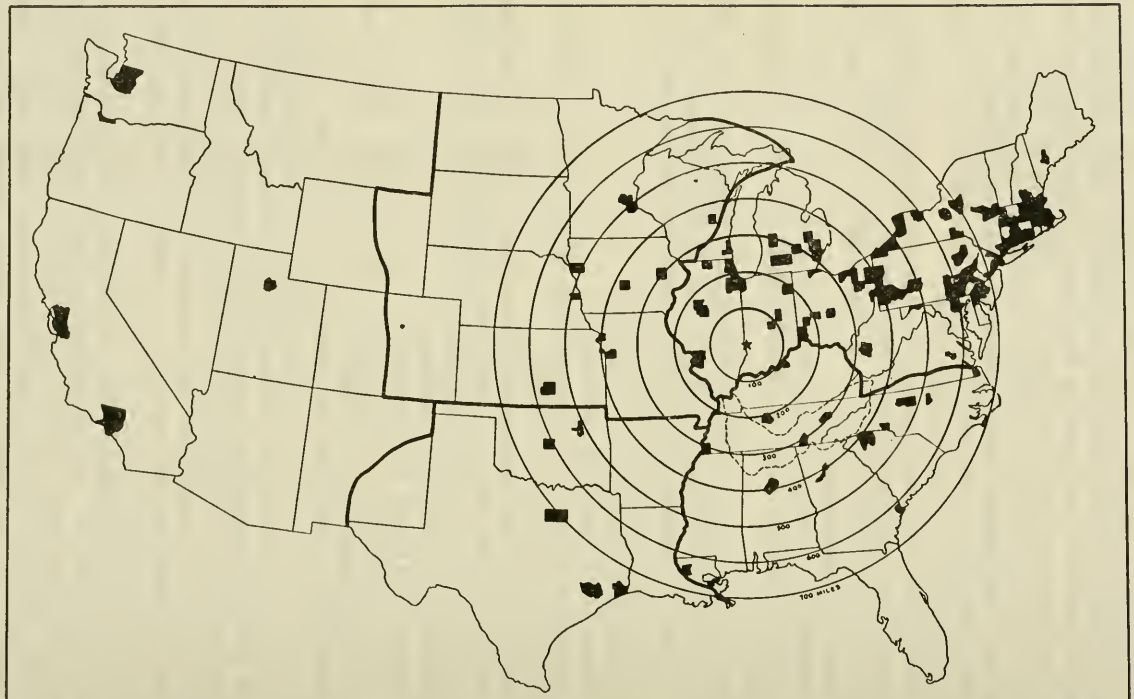
The CHAIRMAN. It may be received.

(The report referred to was marked "Exhibit No. 633" and is included in the appendix on p. 4106.)

Mr. FERRIS. This unbalance between agriculture and industry is illustrated by the fact that in the Southeast we are attempting to support 70 percent of our population in agriculture, whereas in the country as a whole agriculture is only able to support about 45 percent. Expressed in a different way, in the Southeast in a recent year 47 percent of the population was occupied in mining, agriculture, and forestry, whereas in the country as a whole it was only 24 percent, about half as much.

What led to this unbalance? Let us consider first the history and the present situation of the Cotton Belt, which is still the economic backbone of the Southeast. Early in the South's history, as we have stated, cotton and some other semitropical crops were easy to raise on virgin soils, and the raw-materials economy which grew up set the pattern of the development of the South on this basis. It was assumed that the fertility of these soils was infinite, but it wasn't. For instance, in the millions and millions of bales of cotton which have been shipped, every ton of cottonseed took about $12 worth of plant food, fertilizer, out of the area, to the extent that cottonseed

EXHIBIT No. 631




LEADING INDUSTRIAL COUNTIES IN RELATION TO THE 1930 U.S. GEOGRAPHIC CENTER OF POPULATION

THE ABOVE 152 COUNTIES OUT OF U.S. TOTAL OF 3,071 PRODUCE 75 PER CENT OF TOTAL VALUE OF MANUFACTURED PRODUCTS

STAR INDICATES CENTER OF POPULATION

T.V.A. TRANS ECON DIV

vas shipped from the area, as it generally was, and the continuous ropping robbed the soil of humus, and erosion began.

All of this was well known before the War between the States. Vashington and Jefferson issued preachments to southern planters bout better cropping systems and diversification. There were lead- rs immediately after the War between the States who thought they aw the opportunity of changing the agriculture of the South. Un- ortunately the destruction of capital and other forces fastened agri- ulture on the South even more firmly. While the world thinks of outhern agriculture largely in terms of cotton, equally important is he upland diversified farming in which the very large percentage of he people of the South live. It is more or less on a subsistence asis; it is generally in hill territory where good lands are scarce, nd the pressure for mere existence impels the population to push he land faster than it can stand, and rapid erosion and the threat- ned destruction of the soil unfortunately are far along.

Why cannot the South continue to remain agricultural, as it is, to he present extent? The answers are plain. There is a very high urplus rural population, both in the Cotton Belt and in the other ype of subsistence or semi-subsistence farming. The families are irge, farms are small because there isn't much land, and the pres- ure of this population is such that agriculture simply cannot employ hem all.

What has been happening? Of course, a tremendous migration nto other parts of the country. The problems of the South have een shipped north in many cases. But migration has never com- letely solved the problem. Hundreds of rural counties came to be ependent upon a subsidy basis. For instance, I can give some ata on one which represents many others in the Southeast. Taking he county line and putting a fence around it and measuring what oes in and what goes out, they shipped goods and services worth 634,000 in 1 year. Government payments for schools and roads nd other sources of Government money in the county amounted o $38,000 in that year, which was in one sense a subsidy if you ike, yet in spite of that large flow of State and Federal money n that county, which was spent, of course, for schools, roads, post ffices, pensions, C. C. C. work, W. P. A. projects, and what not— must correct that latter; there were no W. P. A. projects, it was n 1932—the forests and soils and buildings of the county depreciated y $155,000. In other words, about 25 percent of the total turn- ver of the county was made good by digging into the dwindling re- ources, eroding lands, skinning forests, and so forth. That is per- aps an extreme example, yet it has become a problem in many f the rural counties as the income map will make more or less lain.

I happen to have been born in another part of the country, in Visconsin, and many of my friends have a tendency to say that ort of thing is just a problem of the South. "Let's not worry bout it." Unfortunately that is not true. Wisconsin is a fairly rosperous State, and yet there are scores of cot over counties in the orthern part of the State that are similarly on a subsidy basis, nd some of my friends from New York who have looked into he situation tell me that within a stone's throw of our greatest netropolis, New York City, you will find rural counties in substan-

tially the same financial situation as these southern counties that we have been telling about.

The cities of America have quite an interest in this thing. For years the concentrated centers of manufacturing in America have enjoyed a good deal better per capita income than the rural districts. Apparently it has been, since 1900, some two-thirds as high again as the income in these rural counties. These rural counties in this sense means rural America, not just the Southeast, but ultimately the prosperity of cities depends upon the prosperity of their hinterlands, as illustrated by the slow economic paralysis that descended on Vienna during the 20 years after 1918 as a result of loss of its hinterland region in the Danube Valley.

So far I have tried to indicate the main reasons why the Southeast is a provincial economy, and the consequences of the low income to the Southeast and to the Nation.

The correction of this economic unbalance is in the first place essential to the preservation of agriculture itself. Some of the barriers which the South is struggling against can be solved by the people and institutions of the South, but there are others which were not self imposed, and for the removal of which the cooperation of the rest of the world is needed.

It seems now appropriate to examine the things that can be done which bear on correcting this excessive dependence upon raw materials and agriculture. As we go through them, I think it will be plain to the members of the committee that all of them are slow in their effects, that not only is the swift growth of industry impossible but I think most southern leaders will say that they do not feel too swift a growth will be desirable. The southern people by and large want to remain basically agricultural. The industrial development which is hoped for is in the nature of a correction to an unbalanced situation.

In the first place all of my southern friends will agree, I am sure, that first consideration must be given to the land itself. Diversification of agriculture is the key. To illustrate this, we recently investigated the possibilities of improved income in a group of 50 counties. We were astonished to find that the value of the farms considered as business enterprises in those 50 counties approximated $300,000,000. That is quite a plant, and the annual turn-over in those 50 counties approximated $150,000,000. Plainly the achievement of a better living on the farm has in it possibilities for greater improvement than quite a considerable measure of industrialization. In other words, 10 percent improvement in agriculture should cheer up the people in that area as much as $30,000,000 invested in new industries. The core of the problem, I am sure most of us will agree, is educational.

(Representative Reece assumed the chair.)

Mr. Ferris. How to get millions of farmers to follow improved practices and how to make it possible for them to do so is the problem. After the War between the States many southern leaders saw that it was difficult to make a change, partly because the whole credit system, the whole financial system, was geared to cotton. The financial institutions which had grown up were not used to lending to business except to such business as had to do with handling the transactions that went with cotton and other great cash crops.

But in addition to education there is some research, even in agriculture, that is needed. To illustrate the way things can't be changed in a hurry in the South, the story of the Spanish cattle tick, it seems to me, is an excellent lesson. It was to me at least. Southern farmers long ago, at least 50 years ago, recognized that without livestock it was impossible to build up soil fertility, but they encountered the fact that they couldn't ship beef cattle to the markets of the rest of the United States. Why was this?

Because the infection of cattle from the Spanish cattle tick happened to coincide with the southern climate and the Federal Government had to set up a quarantine line to protect cattle in other regions from infected cattle. Now, the cause of that disease was identified prior to 1890, but there was no way of getting that knowledge out to the farmers until some research workers in Louisiana State College spent 12 years on research, studying the life cycle of the cattle tick and methods by which the farmers could remove that infection from their livestock. Until that research came to a successful conclusion, there was no possibility of the normal amount of livestock being developed along with other crops in southern agriculture.

If the central problem is one of education, the South can be proud of the fact that its agricultural colleges are doing a splendid job of training leadership. However, more vocational education is required. It should be borne in mind that the agriculture of the South prior to the War between the States centering about cotton and the plantation system, also carried with it its traditions and one of them was that the sons of the ruling class looked down on business and industrial occupations and those who left the plantations went into medicine, law, politics, and the Army. They were not interested in business and industry.

It was thought of as a less dignified way of earning one's living, than the plantation system. Granting, if you will, that the first part of the job is agricultural in the South, the first part of the job of bringing this income up and building back resources, it must be admitted that agriculture alone can't do the job. It is necessary to get the city people to lend a hand and to get engineering and industry mobilized. This can be perhaps well illustrated by taking a specific case which leads us pretty close to the problems of industry in the Southeast.

The agricultural experiment station of the University of Tennessee worked out an extremely ingenious system for stopping erosion and restoring land on steep hillsides, and lands which were acid in character, called the fall-grain and lespedeza system. That system of cropping consists of a legume cover crop known as lespedeza, which is planted and grows during the spring and summer. It is a hay, somewhat similar to alfalfa, called the poor man's alfalfa because it doesn't require that the soil be limed. The lespedeza cover crop is left on the ground all year round, but remember it is hard and dry early in the fall; rows of winter grain following the contours can be put in, leaving alternate strips of the cover crop between them; the rows are 22 inches apart.

In the winter the roots of the cover crop, which had stopped erosion during the summer, shrivel up, but the grain has a fine root structure and it stops erosion during the winter. In the spring the cover crop lespedeza reseeds itself and comes up after the grain is

cut. The farmer has a pasture or hay crop and a grain crop at the same year on the same field and at the same time he is bringing back the field instead of running it down.

Well, that interested not only the agricultural educators but the farmers; 200,000 of the 250,000 farmers in the Tennessee Valley, however, are at a pretty low level of income. I think the average family income might be for these four-fifths of the farmers, between $100 and $300 in cash money a year, so expensive machinery to do a thing like that is out of the question. The need, therefore, was for something cheap that would put in that winter grain on contours. Agricultural machinery industry was approached but had nothing to suggest; the reaction was that the incomes of these farmers were too low to make them a market for this machinery; it didn't look like a very worth while place to invest money. They thought that by and large they had better invest in developing new machines for the big flat farms of the Midwest, where the income was higher.

So one of the technical research developments which is now finding its way into industry was to make a thorough seeder which would do that job and enable thousands and thousands of farmers to start bringing back their land. The agricultural industries department of the Tennessee Valley Authority tackled it. We developed such a machine. Naturally, it was an experimental project. We had no desire to manufacture agricultural machinery; our only idea was to get private manufacturers to do so. We talked to several of them, even after a successful machine had been built. They still said, "It doesn't look like a very good business opportunity."

However, the thing was absolutely crucial in the soil conservation program. Hence, 40 demonstration units were built and put out on all kinds of farms up and down the valley, big farms and little farms, and flat farms and hillside "scratch" farms. Last June the sales manager of the company in Louisville came to my office and I gave up the idea of trying to convince him myself. I got him to get in an automobile and go out and talk to some of the farmers.

A month later he said, "We are going to do it," and during last summer the company built 300 of these furrow seeders, but it took 4 years to convince it. Now it is making them; they are being sold in county-seat towns throughout the South, and a new industrial opportunity, small perhaps, but yet significant to that manufacturer, and enormously significant to agriculture, has been opened up.

The significance of it is, of course, that private business has taken it over and is earning money by rendering a service to agriculture, which service could not have been rendered except for the research and engineering help of a public agency.

Acting Chairman Reece. That company is doing profitably already, is it?

Mr. Ferris. I can't be sure of that Mr. Reece. I would judge that there may still be some faith connected with it, but it is a market that is potentially very large, and they sold 111 last year, and my guess is that they might well break even this year. That, in my mind, illustrates perfectly one place of local industry in the readjustment of economic conditions in the South and is also an illustration of the fact that there need be no conflict between the public agencies interested and private business.

It is interesting that this company has put out a circular in which is one of the best statements of how to go about rebuilding soil that I have ever seen. It was written by them and is a splendid job.

Now, so far we have given consideration to the possibility of the agricultural machinery industry expanding by serving new opportunities opened up by soil conservation programs. That, however, is only a small part of the story. Much larger industries and much more important industries have a vital part in the readjustment of conditions in the Southeast. Let us take the cottonseed-oil industry. The products of this industry in a recent year were over $200,000,000. It is significant in the economy of the Southeast, not only for the money it brings in but also because of the fact that it is the avenue by which cottonseed meal goes into commercial channels.

The cottonseed meal is what takes fertility from cotton land. Cotton fiber and oil are made up of chemical elements that come from air and water, and are inexhaustible. The South can ship cotton fiber and cotton oil for centuries if it somehow manages to get the cottonseed meal and some humus back into the soil.

But every ton of cottonseed meal took $12 or so worth of plant food away. Now, nothing can be done about that except as the cottonseed industry finds ways of getting more of the plant food back to the land which produced it. The way of course is by more local sales as livestock gradually comes into the agriculture of the Southeast. There are markets for the local sales of the cottonseed meal which is an animal feed, and it so happens that the smaller cottonseed oil mills are changing their business practices. I merely bring it in to illustrate the fact that the farmers and the agricultural leadership of the Southeast can't do the job alone. Industry has a part that is absolutely essential.

One of the most dramatic difficulties faced in the South is in developing its own engineering leadership for local industrial development. There are many engineering colleges that are turning out graduates every year, but they have been thinking in terms of existing jobs in industry where it is, and if you will refer back to the map of concentration you will see that 75 percent of American industry is concentrated in 5 percent of the counties, and that most of it is outside of the South and hence it was quite natural that many of the deans of engineering were proud when it developed centers of industry like Akron, Detroit, and New York, and Pittsburgh took their very best engineering graduates, or as many of them as they could get. It is quite clear that opening up anything approaching a new industrial frontier requires leadership, engineering leadership.

Now the next thing in the matter of leadership for new opportunities in local business of an industrial nature is that the engineering education which is effective has to be vitalized by having research carried on in the same institutions. Research of a practical nature and the kind of research which can really inspire the young men to potential leadership in the Southeast for the industry is the kind that has to do with the local processing of the materials at hand.

Let us remember that large industrial enterprises have ample research facilities. They have their own magnificent research laboratories; I have in mind, of course, General Motors, General Electric Co., United States Steel Corporation, American Telephone & Tele-

graph Co., and many others. They neither need nor want research assistance in the South, or anywhere else.

On the other hand, the small businesses in which this committee has expressed an interest are singularly dependent upon research in modern times. In these days new industry comes out of the laboratory. The cottonseed-oil industry has been mentioned. There were 400 small cottonseed mills in the South in a recent year; there are now only about 325; yet a study showed that they had a natural economic advantage over the larger mills. It was unnecessary to incur certain expenses of cross hauling the raw material and the finished products, and yet they were found to be reducing in number—going out of operation. Why? Because the big fellows had enough income to carry excellent research men on their staffs and the little fellows didn't. Ten years ago a number of the smaller producers of cottonseed oil in the Southeast approached the engineering college of one of the southern universities and asked what could be done about it. They found that they were falling behind the procession of technical progress. There, for instance, was a business that wouldn't get very far in asking for new money because it couldn't show ability to compete with some of the larger competitors, and in order to show ability to compete it had to catch up with the procession in engineering and that meant research, and, as I said, a number of these smaller mills approached a public research laboratory in the university of one of the Southern States.

That illustrates what seems to be one of the most hopeful methods of opening up opportunities for new income in the Southeast. Five years ago, when I first became associated with the program of engineering research on small industries in the Southeast, we found this situation with reference to the cottonseed oil industry. We immediately sensed that it had a tremendous importance with relation to the Tennessee Valley Authority's program of soil conservation, as there was one of the leakages by which plant food, fertilizer, was getting away, and sometimes you have to plug holes as the first measure.

The industry contributing to the laboratory of the university had gotten to the point of a laboratory solution to one of their problems, the problem of processing the meats before extracting the oil in the hydraulic presses; but nobody knew whether it was practical or not; hence the step taken was to build a big enough unit to convince these small-business men that the thing would work in their plants and that was done, and it did work, and finally the university in question set up a demonstration plant and after some 2 years of operation on a sufficient scale to prove the feasibility of the development, the latter was licensed to private business.

In a general way it can be said that new industry in the South or anywhere else is not born full blown. It must come into being from small beginnings. There must be this backlog of research and there must be leadership, but in a general way there must be ideas and specific opportunities must be uncovered. That has been the way that new business was developed in other parts of the world: In England, where industry came first, in Germany, in the northern part of the United States. May I remind the committee, for instance, that Charles Goodyear built the first small rubber plant in Springfield, Mass., in 1841, to test out his invention of vulcanizing rubber, and it was not until 1870 that he had accumulated enough

evidence and got enough support of the feasibility of vulcanizing rubber to make it possible to begin manufacturing in earnest at Akron, Ohio.

Mr. NEHEMKIS. May I interrupt you at this point? Will you identify that, please?

Mr. FERRIS. This booklet is Circular No. 2 of the State Engineering Experiment Station, Georgia School of Technology, Atlanta, Ga. Its title is, "Engineering and Social Progress in the South."

Mr. NEHEMKIS. I should like to offer that booklet in evidence, please.

Acting Chairman REECE. It may be admitted.

(The booklet referred to was marked "Exhibit No. 634" and is including in the appendix on p. 4109.)

Mr. FERRIS. Mr. Chairman, how much time have we got to complete this presentation?

Acting Chairman REECE. How much time do you think you would like?

Mr. FERRIS. I think that I can finish in 15 minutes, Mr. Chairman.

Acting Chairman REECE. You prefer to finish this afternoon, do you not?

Mr. FERRIS. It is immaterial to me. It is entirely a matter of the pleasure of committee.

Acting Chairman REECE. It is agreeable to me to run for awhile.

Mr. NEHEMKIS. Do you think it will take you more than that?

Mr. FERRIS. I can finish in 15 minutes.

The research which has been briefly referred to in connection with opening up new opportunities from the cottonseed-oil business, and which is described in detail in the exhibit just submitted, is one of a series of projects in which the Tennessee Valley Authority's department of agricultural industries was engaged. The studies assumed that engineering research would be a powerful lever in opening the opportunities for small-scale manufacture. It is not just a matter of pointing with the finger. It is a matter of studying not only the engineering problems but whether or not markets exist and whether or not they could be more economically served in some other way.

It may be desirable to illustrate another example of the opening of an opportunity. The one that has been referred to in the cottonseed-oil industry was with an established industry. The next one is an agricultural industry that is not now established in the Tennessee Valley region. It is, however, inherently local. I refer to the rapidly developing quick freezing industry in the United States. The market situation is interesting. It is one of the new industries in which the expansion has been very rapid over a long period of years. Markets expanded 50 percent per year from about 1927 through 1937, and even in the recession year of 1937 expanded 29 percent.

Cooperatively with the college of engineering of the University of Tennessee, the T. V. A. noticed that important markets were being lost for this product in raw-product form in the Tennessee Valley region. For instance, in the State of Tennessee over a period of several years prior to 1929, 9.5 percent of the raw product shipped in the Nation was shipped from the State of Tennessee. In 3 or 4 recent years only 6.5 percent was shipped. Obviously something was wrong. It was then found that this situation fell very heavily on certain rural counties which had the strawberry crop and other berry crops as their

main reliance for income. For instance, there was one county in which in prior years 760 carloads of strawberries were shipped each year; in the depression this dropped to 160 carloads a year. The local people thought it was all a matter of bad business, but it wasn't. The point was that the quick freezing industry was growing all over the United States and these people were not getting their share of it, even though they were one of the nation's largest producing areas. It was natural that private businesses established in other parts of the country should worry very little about this. They had plenty of areas in which they could get all of the raw materials they needed that were much closer to the bigger markets. Furthermore, the freight rate situation was such that hauls all the way across the continent were just as economical as hauls of only one-third that distance.

However, here are thousands and thousands of rural people and they have no chance of recovering those markets unless they can get part of this changed business development. There were no cold-storage warehouses within reach of most of the farmers concerned. Refrigerated transportation was not available, and everything pointed to the likelihood that that part of the economic base would be washed out from under them and stay washed out. It seemed natural that if nobody else would take an interest in that sort of development public agencies might, and the college of engineering of the University of Tennessee had been experimenting with the processing of products, of perishable food products, by freezing, for many years, and hence the Tennessee Valley Authority consulted them and it was decided to attempt to see whether some process of freezing could be adapted to that situation encountered in the Tennessee Valley area, so that a normal share of a rapidly increasing business could be obtained.

It might be well to spend just a minute to indicate why the freezing business had displaced fresh products. Formerly many of the uses for fresh strawberries and other fruits were in the industrial markets, preserving, pie making, and so forth. As soon as the original type of frozen products, called cold-pack products, came on the market, it enabled these industrial consumers of the raw product to get them in processed form, frozen permanently. That made them like cloth, lumber, or nails, or any other permanently stored commodity, and they could get so much a month, whereas in the old days, using fresh product, they had to have equipment and personnel to handle a whole year's supply of raw materials in 4 to 6 weeks, while the crop was at the peak.

Obviously, the overhead was high, so the minute the cold-packed fruits and vegetables came on the market a large part of the industrial outlet had no further interest in fresh products at all, and the particular farmers who happened to be dependent on that raw product were just out of luck. They weren't out of luck in all parts of the country, because the freezing business had made a start, but the particular group in the Southeast were destined to lose out.

A new process was developed. The aim was to find a way of freezing in small enough production units so that the products from scattered farms over quite an area could be purchased, and to do it economically enough to compete. As I said a while ago, that sort of development is not just a matter of pointing the finger. Market analyses were made over a period of 3 years to find the exact areas in

which the inherent economic factors were such that the southern area could logically serve them more economically than could other areas.

A process was developed which was novel in character. It could be operated in small units, 2,000 pounds per hour or down as low as 500 pounds per hour. Ultimately it will probably be developed to a portable basis.

Commodities were frozen experimentally, cost records obtained, and it was found that far from being an inferior product as many of the buyers had feared would be the case in the Tennessee Valley producing areas, the product was a superior product, and in disposing of limited quantities from the experimental operations premium prices were realized.

That development apparently has laid the basis for local industry, the purpose of which will merely be to get an agricultural product on which large numbers of farmers were dependent to the market. Without this development they were bound to lose a large part of that market.

Mr. NEHEMKIS. I ask you to pause at this moment and identify this document.

Mr. FERRIS. This diagram is entitled "Income Added to Area by Freezing." I should like to make a comment on this diagram at this time, if I may. Earlier in my presentation I spoke of the fact that a raw product area loses in exchange for manufactured products. It also gets less for what it ships out than it might. Let me call attention in this case of quick frozen commodities to the figures shown on this diagram. For a number of years the amount of money that fresh strawberries left in the state of Tennessee, shipped on the fresh market, was 4.2 cents, average. It took a certain number of acres to grow that product. By quick freezing it, you add a scientific knowledge and engineering skill and labor to it and the most conservative estimate that we have been able to make is that the same number of pounds would leave at least 8.4 cents per pound in the area. Now there it seems is the basis for raising income. It seems a better basis than the subsidies which we discussed earlier.

Mr. NEHEMKIS. I offer in evidence the diagram identified by the witness.

Acting Chairman REECE. It may be admitted.

(The diagram referred to was marked "Exhibit No. 635" and is included in the appendix on p. 4119.)

Mr. FERRIS. In the rural regions, such as many of the parts of the Tennessee Valley and the Southeast, America is at a sort of crossroads. The action of past forces for which our people are not entirely responsible has brought about a condition in which thousands and thousands of people are dependent on a continual flow of money from the wealthier centers of the states—these state subsidies for roads and schools, and then more recently the money from the Federal Treasury has helped shore up the thing and keep the wheels turning.

It seems perhaps that a more sound method of approach, or one which should be developed as fast as possible, is to enable people to create wealth themselves. If there is any other way than adding brains and skill to raw materials, I haven't heard of it, and to the extent that that is done, we can anticipate raising America's income wherever it is done.

In addition to the research activities of the T. V. A., some of its other programs have a rather interesting effect upon industry. I should like to call attention to the fact, for instance, that a waterway of 657 miles in length is being added to the national system of waterways. That waterway is somewhat different from any that have been developed yet in that it goes into the heart of a region. A map of the Mississippi-Ohio internal waterway system will show that it follows lines which divide regions. It is a sort of fence between regions, except at the upper end of the Ohio.

The interesting thing about the Tennessee River addition is that it goes into the heart of the Southeast and will, it is anticipated, permit certain materials and resources to move in commerce that wouldn't otherwise be accessible.

In the development of that waterway, as the committee is well aware, electric power has been made available and it has been distributed over a fairly wide area at low uniform rates. It would appear that certain effects of these developments on the water system may have favorable effect on the economy of the region. The industry of the Northeast developed on an artery pattern; the concentration map clearly shows it concentrated first along the ocean margins and, second, along certain main arteries of transportation on which coal could be easily hauled. That need not be repeated in the Southeast apparently because industry is coming there later in the history of the Nation. It is coming at a time when there is a network system of transportation available instead of an artery system. Furthermore, electric power is available in hundreds of smaller towns, which was not the case in the Northeast. Hence, the Southeast may reasonably anticipate that nothing will prevent a better-balanced development and less concentration in a few large centers.

Now, what has the new network of electric power got to do with that? Well, obviously, it is a different thing in deciding upon the location of manufacturing as to whether the power is only available where coal could be hauled cheaply along some railroad line or river channel or whether it is available anywhere. One of the things that has happened in the Tennessee Valley area is that firm industrial power is available at uniform rates. Large and small municipalities all sell retail power at the same retail rate with some minor variations, and surcharges for amortization, and since the power is available at uniform rates in large and small communities there is no longer the tendency to concentrate manufacturing at a few centers.

Furthermore, the power rates to small industrial customers are just as favorable as the rates to large industrial customers.

The most obvious example of opening new opportunities for industry is in the electric-appliance industry. Here you have an area in which along the rural lines in 2½ years the number of customers increased from about 63,000 to about 122,000. You have an area in which residential consumption of electric power increased about 72 percent, from early in 1933 to the end of 1938, as against 33 percent for the country as a whole. Now this power can only be used as appliances are bought to use it, and it therefore won't be at all surprising that over a period of only 3 years the rate at which electric appliances were bought along the lines supplied by the T. V. A. power was doubled and that over $5,000,000 worth of appliances have been

sold there, and of course most of them have been manufactured in other parts of the country, so that the stimulus to business has been in that case largely to business in other parts of the country.

Also, as farms and residential users put in electricity, they have a way of making other improvements at the same time and it is observable that other industries are being stimulated. People paint and they do other things which it isn't necessary to recount.

It has been said that agriculture alone isn't going to do this job of increasing the income in the Southeast to the point which the Nation wants it to reach. I am sure that the cooperation of industry is required. It is rather interesting that some of the largest national businesses are taking a new attitude in this matter. One of the great merchandising companies, the name of which I am not at liberty to mention, has been placing industrial orders in various regions of the country as nearly as possible in proportion to the sales which they expect to realize in those regions. Of course, in doing that they are also making an investment in future markets and in less taxes for subsidies, let's say, to those regions. It is well known that Ford has been thinking along the same lines. He has built 4, pardon me, 12 plants in rural areas in recent years. They make $8,000,000 worth of products a year. They paid out approximately a million and a half dollars in wages. Of course, Ford's idea is to find out how far it is possible for a manufacturer to serve his own interest and at the same time build up purchasing power in the hinterland where he ultimately expects to sell his products.

The Simmons Co. of Kenosha, Wis., has during the course of a few years started manufacturing all over the country. It has eight decentralized plants now.

The Goodyear Tire & Rubber Co. is quoted in a recent article in Business Week to the effect that a 5,000-tire-a-day plant can be just as efficient as a 20,000- to 40,000-tire-a-day plant, and it has begun to attempt to build up purchasing power consciously.

It is unnecessary to say that the South should strive to attain parity in transportation rates. It seems to be a matter that is a national responsibility, inasmuch as the Federal Government has a great voice in the control of transportation rates. The committee, of course, knows that this matter is now under active consideration by Congress and the Interstate Commerce Commission. But there are other barriers to development in the South for which the South is not alone responsible. I can mention, for instance, the pricing systems on certain major basic commodities. Steel was one until recently. Only a short time ago a $3 differential on steel at Birmingham was removed. Until it was removed, any manufacturer who was interested in making desks or filing cases or roller skates or any fabricated product of steel in the South had to pay arbitrarily a $3 a ton premium on his basic material, and naturally he didn't do it, the location was elsewhere.

Apparently the South and the Nation will gain if there is a somewhat greater degree of self containment in industry. It will strengthen the national economy as well as that of the Southeast, and regarding any new industrial production that may come about in the Southeast, I should like to quote a very conservative authority, the National Industrial Conference Board, on the matter of competition.

They recently published a statement on how to build up the prosperity of agriculture and advocated greater processing of agricultural products in the agricultural areas. I quote this statement from that bulletin:

Any new production is matched by new markets for goods from other areas.

We have already given examples. We have already filed as an exhibit a list of manufacturing in which the percentage of its production in the South is ridiculously low.[1] It should be recorded, I think, that until recently the best authority I know of estimated that the South has been trying to buy a billion dollars worth of foods a year from other parts of the country, of which about $400,000,000 worth was bought by farmers. Everybody knows that the income from cotton is falling, and that it cannot be relied upon to recover, and that a long period of readjustment must come about in the South before alternative sources of income are developed which will fully replace cotton.

Where is the South going to get the money to buy $1,000,000,000 worth of foods from other parts of the country? It isn't likely that it will. It is simply being forced to raise more of its own foods and ultimately foods processing will probably grow along with foods production. An example of greater self-containment that benefits everybody in the Southeast and nationally alike is this very interesting local business which is sweeping the country, the freezer locker plants. A southerner in Memphis calls them "food banks." There are hundreds of them in the Middle West and the Northwest, southern Canada, and there are some scores of them in the Southeast now.

I dare say that if the facts were known there would be many more if the financing—if people investing money had a picture of the possibilities. There are 5 in Tennessee and 15 in Texas. What the farmer does is to rent a little locker that has about 10 cubic feet of space and he pays about $10 a year for it. The locker plant generally has 300 of these lockers. The farmer can raise and keep fresh meat and his own family can eat it, and by and large the meat is consumed locally entirely, and there is not the slightest bit of competition with other parts of the country.

The people in the Cotton Belt report that many of the tenant farmers are gaining as much as $75 a year on a $12 payment for a freezer locker. Having a way of keeping fresh meat, they raise a little. The southern farmer is meat hungry, but he hasn't been able—he hasn't had the facilities to keep it. You can't hang out an ice card in the rural South—or if you did, nothing happens, and the new freezer locker business is making it possible for the southern farmer to have fresh meat, and it is going ahead by leaps and bounds, apparently in spite of any financing difficulties that there may be.

However, I have no doubt that the growth would much more nearly approximate that in the other parts of the country if the financing problem were solved. It should be remembered that in trying to achieve a greater degree of industrial self-containment, the industrial development of the Southeast, while rather dramatic, has been largely absentee owned. For instance, the South has one of the Nation's most profitable opportunities for steel manufacturing; coal, limestone, and our largest remaining reserve of iron ore all

[1] See "Exhibit No. 633," appendix, p. 4106.

right together near Birmingham. Originally the company that developed that resource in the Southeast was locally owned, but in 1907 it became an outpost of the U. S. Steel Corporation.

In 1907 the Southern Railway became a part of a national system controlled from New York. Many of the dramatic industrial developments which earlier in this statement we relied upon to support our optimism, are absentee owned. The big chemical companies, almost all of them; big rayon companies; in fact, one of the difficulties is that the lack of leadership and research in the South is tending to force the development, the ownership, and control outside.

The exhibit that has been filed, the statement by Dean Wilkinson, of the University of Louisville,[1] shows that in the State of Tennessee about 39 percent of the dollar value arising from manufacturing was in absentee owned plants. In 1929 that had grown to 64 percent; in 1933 to an estimated 70 percent; in other words, absentee ownership and control was growing fast. He also estimated that about 46 percent of the profits from industry in Tennessee in the year 1933 left the State and, of course, was not available to build up the South's working capital. The question was asked as to the importance of improved facilities for financing. This witness is not qualified to discuss that question as an expert. However, he has consulted some economists who are somewhat familiar with the situation and was astonished to learn that only this year has a study been begun to find out the extent and cost of credit available to industry in the Southeast.

The Rosenwald Foundation has just financed a project at North Carolina State College to really get the facts on this question of credit.

Mr. NEHEMKIS. How long do you think it will take before they have their study completed?

Mr. FERRIS. My guess would be that at least a year would elapse before reliable data would be available. The problem is certainly extensive, and involved, and apparently those studies in North Carolina State College might well be supplemented.

Another suggestion that has been made is that it is rather strange that 25,000,000 people in the Southeast have no access to a stock exchange in the region. It is true that southern stocks are bought and sold over the counter, but apparently a great many people are more inclined to risk their money in a venture if they see an easy way of getting it out, and they are much more inclined to rely on financial institutions that are in control of the people they know, or know about.

It would appear, also, that the basic problem of opening new opportunities is to finance new equipments; the industrial equipment of the South is very meager. With only 9.6 percent of the Nation's value added by manufacturing it is plain that in proportion to 20 percent of the population, the development involves long-term investment, and the South's capital fund must be built up and must be drawn upon. That long-term investment will probably come partly from local equity investing, venture money, but an economist whose opinion I value is convinced that term banking is probably, or would be a very constructive move, investment banking on a basis which

[1] See "Exhibit No. 632," appendix, p. 4099.

would permit the financing not merely of short term transactions but of equipment and buildings and so on for periods of 10 to 20 years.

Summarizing, concluding, it is the opinion of this witness that the expansion of local business involves a number of underlying forces in addition to credit; that these forces are necessarily slow in action and the effects are bound to be slow. However, the South is fortunate in having leadership which is analyzing all of the intricacies of the problems before us, practical men who are taking these problems with unusual seriousness and are trying to do something about them. They don't want the South of the future to be a duplicate of the commercial and industrial economy of any other region. They want it to remain, I think, basically agricultural, and they think of indigenous industry primarily as a means of balancing the economy to the point where the pressure of the surplus rural population can be relieved. The rest of the Nation, I am sure, does not want a continued migration of millions of people from the South, either to its large cities or to its developed agricultural areas. It wants these people to develop means of increasing their income largely where they are, I think, and it can look forward to a slow development in a direction as technical research and financing and education and leadership all cooperate.

While slow, these forces are under way. It is repeated that something dramatic happens when, in one Southern State, 25 percent of its agricultural land devoted to cotton was changed in 6 years to other diversified crops. It is dramatic that in spite of the difficulties the Southeast has encountered it has been able to keep up with the commercial, or at least the industrial, development in other parts of the nation; hence in the opinion of this witness both the South and the nation may hope for an acceleration of past progress.

I have nothing more to say.

Mr. NEHEMKIS. One question, if I may put it to you: If I understand your testimony correctly, the primary problem of the South as you have been describing it is not the pouring in of additional credit but the making available to that area technical and laboratory research in order to utilize the basic byproducts of that region. Is that correct?

Mr. FERRIS. I should say so, yes; in order to utilize the resources at hand and to add value to them, scientific knowledge, and engineering skill and labor, so that, as they go to the markets of the nation and the world, they leave a bigger return behind them than the returns on that income map.

Mr. NEHEMKIS. Thank you very much.

Mr. TAYLOR. Mr. Chairman, I have one question that I think can be answered very briefly. Our own studies in the Department of Commerce show that in certain parts of the South there is a relatively large amount of foreign capital investment. By foreign I mean from outside the United States. Have your studies indicated in any way the geographic distribution of outside capital invested in those industries down there?

Mr. FERRIS. We have made no comprehensive studies of that. I happen to know that the largest cotton farm in the world is financed by English capital, in Mississippi, the Delta & Pine Land Co.

Mr. TAYLOR. Some of the industries are, also.

Mr. FERRIS. The steel industry at Dayton, Tenn., was once financed by British capital. It has folded up. A large amount of the coal and timberland in southwestern Virginia and western North Carolina was financed by British capital, but I have no comprehensive data on your question, sir.

Acting Chairman REECE. If there are no further questions, you may be excused. The committee, however, appreciates your very splendid presentation of this phase of the study, and needless to say it has been of particular interest to me.

Mr. FERRIS. I hope that the chairman will pardon the errors made by a recent importation into the South.

Acting Chairman REECE. You have done a very fine job.

(The witness, Mr. Ferris, was excused.)

Acting Chairman REECE. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon, at 5:30 p. m., a recess was taken until 10:30 a. m., Friday, May 26, 1939.)

# INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

FRIDAY, MAY 26, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
*Washington, D. C.*

The committee met at 10:55 a. m. pursuant to adjournment on Thursday, May 25, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senator O'Mahoney (chairman); Representative Williams; Messrs. Davis, Henderson, Frank, O'Connell, Patterson, Lubin, and Brackett.

Present also: Representatives Robert G. Allen, of Pennsylvania; James H. Barnes, of Illinois; Jerry Voorhis, of California; Pius L. Schwert, of New York; Amos E. Taylor, Department of Commerce; Ernest S. Meyers, Department of Justice; Peter R. Nehemkis, Jr., special counsel, Investment Banking Section, Securities and Exchange Commission, and Joseph R. Kelley, associate counsel, Investment Banking Section, Securities and Exchange Commission.

The CHAIRMAN. The committee will come to order.

During the consideration of the question of milk as presented by the Federal Trade Commission, B. F. Beech, secretary manager of the Michigan Milk Producers Association, was on the stand.[1] A question was directed to him by the chairman asking for a copy of the Articles of Association of the Michigan Milk Producers Association. Mr. Beech agreed to submit those articles. They have now been handed to the chairman and I now offer them for the record.

(The Articles of Association referred to were marked "Exhibit No. 636" and are included in the appendix to Hearings, Part VII, p. 3279.)

The CHAIRMAN. Mr. Nehemkis, are you ready to proceed?

Mr. NEHEMKIS. Yes; I am, sir.

The CHAIRMAN. Will you call your first witness?

Mr. NEHEMKIS. Mr. T. M. B. Hicks, Wilkes-Barre, Pa.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. HICKS. I do.

## TESTIMONY OF T. M. B. HICKS, WYOMING VALLEY INDUSTRIAL DEVELOPMENT FUND, WILKES-BARRE, PA.

Mr. NEHEMKIS. Will you state your name and address, sir, for the record?

[1] See Hearings, Part VII, pp. 2884–2941.



124491—40—pt. 9——30

Mr. HICKS. My name is T. M. B. Hicks, Jr. My address is 853 Wyoming Avenue, Kingston, Pa.; Kingston is a suburb of Wilkes-Barre.

Mr. NEHEMKIS. What is your occupation, Mr. Hicks?

Mr. HICKS. Manager of the Wyoming Valley Industrial Development Fund, and industrial commissioner of the Wyoming Valley Chamber of Commerce.

Mr. NEHEMKIS. How long have you held that position?

Mr. HICKS. Two years.

Mr. NEHEMKIS. What was your experience in business prior to that time?

Mr. HICKS. For about 20 years, in department store and chain-store management, primarily.

Mr. NEHEMKIS. And as such I think it would be a fair statement, would it not, that you had a fairly wide and varied experience with the problems of small business?

### FINANCING SMALL BUSINESS—WYOMING VALLEY PLAN

Mr. HICKS. Yes; that is true. During most of that time my principal activity in store management was in the redevelopment or the handling of sick business; businesses that had some unusual problems that called for special attention. I never had a job when the store was in a good, healthy condition at the time I got it.

Mr. NEHEMKIS. Will you describe for the committee, Mr. Hicks, the Wyoming Valley Industrial Fund, how it was established, what its purposes are, and its general method of operation, as you know it?

Mr. HICKS. Well, we have in the Wyoming Valley a large and difficult unemployment situation. Wilkes-Barre is part of a community of 18 or 20 cities, boroughs, and townships, which geographically are united and economically are united, although they have some political subdivisions in built-up areas where you can't tell where one town ends and the other begins. We have in the valley a population of approximately 350,000 people.

In that valley today we have employed about 45,000 men in anthracite mining operations, and about 25,000 men and women in various manufacturing operations. We have, however, approximately 30,000 unemployed men and women, mostly due to the fact that anthracite production during the past 10 years has had considerable shrinkage, so that we have in that valley more than 20,000 people who were formerly employed in the anthracite industry not now employed. We have a large number of young people who have graduated from high school or who left school and who need employment, who cannot be absorbed in mining operations. Our problem has been to find some method of developing employment for those people. For that purpose an industrial development fund has been raised by the various business interests of the community.

It is a fund which at the minute is $80,000. It has no particular term and when that $80,000 is spent, if the spending has been productive we will proceed to raise another one, whether that is 3 months or a year and a half from now, the purpose being entirely to develop industrial pay roll.

Mr. NEHEMKIS. And as I understand it, Mr. Hicks, this fund of $80,000 has been contributed voluntarily by the businessmen of the community?

Mr. Hicks. That is correct; yes, sir.

Mr. Nehemkis. And the purpose of the Wyoming Valley industrial fund is to bring into your community new business enterprises, is hat correct?

Mr. Hicks. Or develop new enterprises there; yes, sir.

Mr. Nehemkis. I take it the functions of the Wyoming Valley fund are closely associated with the local chamber of commerce, is hat correct?

Mr. Hicks. They are; yes. The fund is independent, but it is ffiliated with the chamber of commerce and the work of the in-lustrial fund and industrial department of the chamber of commerce re for all practical purposes merged.

Mr. Nehemkis. How many new business enterprises have you suc-eeded in getting to come into your community since January 1, 938?

Mr. Hicks. There have been eight new ones developed. They vere not all brought in; some of them were developed locally and here have been three industries reopened that were closed.

Mr. Nehemkis. Are you presently negotiating with any business nterprise outside of the community to come into the region?

Mr. Hicks. We are now in active negotiation with approximately 5 such business enterprises.

Mr. Nehemkis. Do these business enterprises outside of your com-unity that you discussed the matter with manifest an interest to ome?

Mr. Hicks. Why, yes; our interest in businesses coming into the Vyoming Valley is entirely based upon what economic advantage here may be to them to come in there. In the first place, there is trend in quite a few types of industries right now towards decen-ralization of operation; that is partly due to increased transporta-ion costs, and it is partly due to the trend on the part of a number f industries to develop their sales territory more intensively by attering branch operations.

We are in contact with a number of such and we are always seeking ore. There are always cases where we learn in one way or another f an industry which plans to move from its present location, and f it is the type of industry that fits into our plans, we make contact nd if we find it is a sound concern that has some economic advan-ages in location in our community, we do our utmost to bring it ere, and we have about 35 such cases under negotiation at the resent time.

Mr. Nehemkis. I take it you don't make some direct effort unless me prior interest is manifested on the part of the industry, to get em to come into your community. You don't coax them away om their present location unless they are interested in changing.

Mr. Hicks. Not as a rule. We are working on a definitely devel-ped program. We have studied our unemployment problem and we el it can be largely solved through the successful carrying out of pproximately 44 different industrial projects. Some of those projects e a single plant and some of them are a group of small plants in certain type of manufacturing business. We have studied those t to determine precisely what economic advantage there may be r each of those types of industries in location in our community, nd our interest in an industry that may want to expand, establish

a branch plant or move from its present location is very largely governed by how it fits into our plans, as well as the soundness of the industry itself.

Mr. Nehemkis. When you find a typical business enterprise in some outside region that would like to come into your community, as a general matter what kind of financial difficulties do you find confront such business units or enterprises?

Mr. Hicks. Practically all of the manufacturing concerns with whom we are dealing or negotiating come in the class of small industry. That is to say, they have net worth ranging all the way from fifteen or twenty thousand dollars in some cases, up to one hundred fifty, two hundred thousand dollars in others. Of those that we have dealt with in the past, except for one or two branch plants of larger corporations, they have all been in that class. Those we have under negotiation now with one exception are all of that size.

Their problem in expanding to develop a branch or in moving an industry that is now established, is very largely a problem as to how it can be done without cutting down their present working capital.

In practically every case the working capital that they have is either no more than their need or is now inadequate for their need, and their problem is how they can grow or how they can redevelop their businesses without cutting into that limited working capital.

Mr. Nehemkis. And if you can't work out an adequate financial solution to the problems of an immediate business enterprise that is seeking to come into your community, that enterprise simply can't come.

Mr. Hicks. That is right. If we can't work out their financial problem, we can't get them.

Mr. Nehemkis. And what success to date have you had in working out satisfactory financial solutions?

Mr. Hicks. Well, in most cases by one method or another we have so far been able to work them out. There have been one or two instances where we have had to abandon an industrial project because we couldn't find any practical method of financing it. We have a great many financing problems involving industries that we already had. In some cases we have worked out solutions and in others up to this time we don't know what the answer is.

Mr. Nehemkis. Let us turn to this question, Mr. Hicks. What are the types of problems you run into? What is the first major kind of problem that confronts you?

### MAJOR DIFFICULTIES ENCOUNTERED BY SMALL BUSINESS SEEKING NEW CAPITAL

Mr. Hicks. Generally speaking, there are three types of financing problems of small industry to which the solution today is either very difficult or practically impossible. The first of those is the problem of financing industrial real estate. I don't know where you can get a mortgage on an industrial building today. In case it is an old building somebody is stuck with, and you have a purchaser for it, the present owner will, as a rule, carry a mortgage on it, but if it is a case of a new building for a new industry or an addition to a building for an expanding industry, or an industrial project which wants to take a building in the community, that needs to purchase and

remodel it, unless they have assets other than the real estate itself that can be used as collateral, a mortgage is practically out of the question. I don't know where to go for one and I have made repeated efforts.

Mr. NEHEMKIS. Just to make it very practical, could you give the committee a concrete illustration of the kind of situation you are describing?

Mr. HICKS. Yes; I can give one or two of those very readily. We have a project before us right now. It involves a concern which is in the business of dealing in thrown silk. We have a rather large silk throwing industry in the Wyoming Valley. I think we rank next to Paterson in our facilities for silk throwing and in our actual volume of business I think perhaps we are running ahead of Paterson in that particular industry in the country.

This concern is now absorbing the entire output of three throwing mills in various sections of the East. Its volume has grown to the stage where it can absorb the output of a fourth. We are negotiating with them for the possibility of establishing this mill under their own ownership and operation in the community. There is a mill building available there that they are willing to buy if it can be financed on mortgage; that is, they are willing to put some cash into it, but they want a substantial mortgage on it. The price of the building is very low.

Up to the minute, we haven't been able to find any source for the mortgage. We may have to absorb it ourselves eventually, although we don't want to use as much money as that would involve, if we can avoid it.

I have another case of a small business which has the volume available for expansion. It makes upholstered furniture. They need capital for expansion. They have the business available; they can put 20 to 25 more upholsterers to work any time the expansion is worked out for them. They unfortunately own their building. They have a building which has an appraised value of about thirty-seven or thirty-eight thousand dollars. They have a mortgage loan of $19,000 outstanding against it. In order to get that loan they had to pledge all the liquid assets they had. None of their liquid assets are available to finance their expansion because they are all against the mortgage. In other words, they have a $19,000 mortgage on their business by putting up more than $19,000 of liquid assets in addition to the real estate.

Mr. NEHEMKIS. You have been giving us an illustration of one of your major problems; what would you say, Mr. Hicks, was a second major difficulty that you encounter?

Mr. HICKS. Well, the second major difficulty, sir, involves the financing of machinery and equipment in cases of plants which wish to expand, in cases of plants which wish to establish branches, in cases of plants which wish to modernize their equipment, and in cases of new industrial enterprises. The only method whereby a small business house today can finance new machinery or equipment is on a lease purchase plan financed by the manufacturer of equipment. That involves an added cost of machinery which ranges in some cases to only 10 percent, in other cases 25 or 30 percent. It means the small industry financing machinery and equipment by that method is simply saddling itself with a fixed charge in the form of higher

cost of its machinery and interest charges on that investment which tend to throw it out of competition, particularly in industries where competition is sometimes figured in terms of fractions of a cent.

Mr. NEHEMKIS. Can you give the committee concrete illustrations of this kind of financial difficulty you have been describing?

Mr. HICKS. Yes; we have a number of them. It is almost a daily problem with me. I think there is hardly a day that something of this sort doesn't hit into my office to try to find a solution.

We have one case pending now, another silk-throwing mill proposition, where we have a requirement to finance new silk machinery to the extent of thirty-five to forty thousand dollars. That machinery is good staple throwing machinery. It consists of new coning machines. Practically all of our throwing plants are finding it necessary to bring in new type coning machines in order to handle what are termed larger packages. They are 5B machines, which are perfectly staple in the silk industry; they haven't changed in type or value particularly for 15 or 20 years.

That plant can be redeveloped and reopened when we find some practical method of financing that equipment. It could be financed through the manufacturer of the equipment but the outfit in question is unwilling to pay the added cost, which is approximately 20 percent, that would be involved in buying machinery on that method. The business is too competitive for them to be able to stand it.

I have a number of other cases locally that are of very similar nature.

The CHAIRMAN. Dealing with this particular case, are you satisfied that there is a market for the product of this company if it were enabled to acquire the machinery?

Mr. HICKS. The company already has the business, Senator. They are now farming it out under contract.

The CHAIRMAN. And not doing it themselves?

Mr. HICKS. They want to do it themselves. They want to do it in our community.

The CHAIRMAN. Well, if the business is being performed on contract, this financing would merely mean shifting the production from one plant to another plant.

Mr. HICKS. Yes; for all practical purposes. It means, on the other hand, in our particular community, 300 jobs, Senator.

The CHAIRMAN. But 300 jobs in your community taken away from some other community. What I am interested in is expansion, whether there is a possibility for expanding this particular industry.

Mr. HICKS. In the case of the silk throwing industry, until recent weeks there has been definite expansion during the past 12 months. The high price of raw silk has temporarily halted that expansion, but until 3 weeks ago every silk-throwing plant in our valley that was equipped to operate was going full blast, and there was demand for thrown silk that those plants could not supply.

The CHAIRMAN. What is the explanation of the attitude of the manufacturer of the machinery? Apparently you describe a case in which machinery could be sold, but the price upon this lease-purchase plan is too high.

Mr. HICKS. Well, the manufacturer farms out that paper, Senator, to commercial credit companies, as a rule, and the rate that he passes on to the customer is the rate that he is charged.

The CHAIRMAN. What is the obstacle, the interest rate?

Mr. HICKS. That is the principal obstacle, yes; and the fact that he manufacturer, who doesn't get all of his cash out of the transaction in discounting that paper, adds an extra charge on his equipment because of the money he has tied up.

The CHAIRMAN. But the primary obstacle is the inability of the ilk manufacturer to secure investment capital.

Mr. HICKS. That is right. He can't finance commercially that apital need.

Mr. NEHEMKIS. Investment capital for his machinery and equipment.

You have described two major difficulties which are local businessnen's experience; first, the difficulty of getting mortgages on industrial property, and now you have just described the difficulty of getting financial aid for machinery and equipment.

(Representative Williams assumed the Chair.)

Mr. NEHEMKIS. What is the third major problem?

Mr. HICKS. That is the problem of getting needed working capital, particularly in a business that is growing and expanding. A small usiness, one that has started small and has grown right along, has in ractically every case found it necessary to put all of its available unds into the type of assets that are commonly termed slow or frozen ssets. They go into real estate and they go into machinery; they o into supplies and certain types of inventory which are difficult to evelop for collateral purposes. When they reach the stage that ney need more working capital for current operations they either are nable to get it at all or they must get it by various methods which epresent an excessive cost, particularly in any highly competitive ndustry. They are obliged to turn to financing through warehouse ertificates on their inventory, which represents not only an interest ost on the investment but service charges of the warehousing comany which often run as high as the interest charges or double that gure, according to the nature of the merchandise involved. Or they nance through the assignment of accounts receivable, either to a ommercial factor or through a finance company, paying charges for nat service which range anywhere from 9 to 20 percent.

Mr. NEHEMKIS. I wonder, Mr. Hicks, if you could give the committee some specific illustrations of the difficulty and importance of orking capital for a small business enterprise as you have experinced that problem.

Mr. HICKS. Well, we have any number of cases, as I have indicated, ome that we have been able to work out, others that we haven't. I ave one before me right now that is perhaps typical. It is a relavely small business but one that shows considerable promise.

There are three young men who have a small plant in our valley ho are manufacturing a stoker, an automatic burner for anthracite al. They started out about 2 years ago with a design that showed omise. They raked up all the money they could get among them, hich totaled six or eight thousand dollars, and went into the busiess. Their volume last year—that is, for the year 1938—was someing over 100 stokers installed. Their volume of business was pproximately $25,000. During that year they paid out and wrote f all of their organization costs, they wrote off all of their initial

advertising cost, they spent considerable time and effort and money in establishing dealerships through the anthracite-burning States. They were able to establish 25 or 30 dealers who are just coming into play this year. They paid that expense and wrote it off.

The net results of their operations for 1938, having written off all these initial charges, as shown by their statement was a loss of $500. On the face of it that isn't very favorable, but when you dig into what is behind it you find that they have written off rather than capitalized charges, and for young fellows just starting out they have made a fairly decent showing. They submitted their stoker for laboratory tests, paid those laboratory fees, and just secured the official approval of Anthracite Industries, Inc., and the Fire Underwriters, approvals which make it possible for them now to sell their equipment more readily and obtain dealerships more readily.

On the basis of that approval, they have actual orders on their desks today which will give them a volume this year considerably over last year, and at a profitable price level. The case was sent to me by one of the banks. They said on the basis of their statement and the type of collateral which they can offer—because this loan is a short time credit, but it will be a frequent short term credit; it is for the purpose of purchasing motors and gear boxes to be assembled into the equipment, the rest of which they manufacture themselves—they deserve it, but on the face of their statement and for that type of collateral which would be useless to a bank if it had to take it, we can't grant it under the rules, and yet we think they deserve it. Isn't there some way this can be set up so it can be handled? That is the problem we are wrestling with now.

I think in that particular case we are going to be able to work it out. That is, we are going to be able to develop a practical assignment of assets. Those fellows have had within the last 2 months, because of the fact that they have been able to get official approval on their apparatus—that is pretty hard to get, a majority of people in the stoker business or who want to get in it, can't get it because their apparatus doesn't meet those tests; because they have had this approval they have had five or six offers from people who want to go in the business and finance it for them, in some cases finance it on a very strong basis. All they have to do is give them control of the business. But those fellows sat across my desk and told of the struggle they had had to get started, how they had put every cent they had into it and nearly starved to death getting the thing started, and they said, "That is one thing we won't do. We will wreck the business before we will surrender control to anybody," and I don't blame them. I would take the same attitude if I were in their place.

Mr. NEHEMKIS. Did you hear the testimony of your neighbor, Mr. Quackenbush, yesterday afternoon? [1]

Mr. HICKS. Yes; I did.

Mr. NEHEMKIS. What is your experience in your own community with the problem of getting venture money for starting new enterprise? How much demand is there for that kind of money?

Mr. HICKS. There is frequent demand for that kind of money, and it is money that is practically unobtainable.

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[1] Supra, pp. 3902–3909.

Mr. NEHEMKIS. Unobtainable from what source?

Mr. HICKS. Of course, it is outside the banking field entirely, and always has been. It is money usually obtainable from individuals.

Mr. NEHEMKIS. In short, if a local businessman who had a very interesting and sound proposition came to you for advice in the case where he needed equity or venture money, you wouldn't recommend, take it, that he go to the local commercial bank for it.

Mr. HICKS. No; it is out of their field entirely.

Mr. NEHEMKIS. Could you give the committee some typical illustrations of business propositions that could be carried out in your community, that in your opinion as a practical businessman of many years' standing require venture money?

Mr. HICKS. Yes; we have those come up very frequently. Of course, you have to remember this: A great many of the propositions that come into an organization like mine are obviously impractical. Some fellow has an invention and he thinks that it is a million-dollar proposition. It is a pretty wild scheme. Sometimes he has an idea that is a pretty good idea but he has nothing but an idea and there is nothing on which you can build a business. You have to sift those out. But after you get those sifted out of the picture, there are frequent sound propositions. In those cases, they are problems which involve the expansion of an industry you already have, but an industry may need every cent of its working capital for present operations.

(Senator O'Mahoney resumed the Chair.)

Mr. HICKS. Well, let me give you an instance that is perhaps typical We are dealing now with a concern that is one of the very large manufacturers of lamps in this country, that is, lamps for home use or for office use. That concern is considering the expansion of business into a field of lamps that it previously has not handled. In order to get into it they propose to farm out certain operations, principally the casting of lamp bases. The volume of lamp bases that they need would run approximately 1,500 a day as a minimum, and from that up.

It is a 5-pound casting. We have several foundries in the community, none of them now equipped to handle that particular size or type of casting; there are two of them that are willing to be equipped for the purpose. Now, there is a venture that is somewhat speculative in that it represents a new type of operation for foundry owners. The problem is how to get the funds to launch them on that particular type of business; it meant quite an addition to the business of the lamp company itself, which would establish a branch to specialize in that particular type of lamp. There is a volume in casting which would represent employment for 25 or 30 people and shows at least a good gambling chance for a profit to the fellow that goes into it.

The problem is how you can finance the necessary equipment to go to it. It represents casting, grinding, and plating operations.

Mr. NEHEMKIS. Just generally speaking, Mr. Hicks, can you give the committee an estimate based on your own experience, of how many new ventures might be started in your community if there were some ability to obtain what we have been characterizing as venture money?

Mr. HICKS. Well, if you were to add to that, sir; not only industries that might be started, but industries which might be expanded, go into added lines or go into added volume in their present

lines, I believe that we could provide employment for approximately 5,000 people in 1 year's time, if capital loans for that particular type of business were available; they wouldn't all have to be long-term loans.

Mr. NEHEMKIS. And as far as you know in your own community that kind of a financing is not now obtainable?

Mr. HICKS. I have reason to know; I won't say it is not obtainable, because there have been some cases where we have been able to work it out, but there have been so many cases where we have not been able to work it out that I think the answer is that it is difficult to obtain in all cases, and impossible in a great many of them.

Mr. NEHEMKIS. In your experience, Mr. Hicks, would you say that based on the business enterprises that come before you, that the major problem for most of the small businessmen is working capital as distinguished from what we have been calling venture money?

Mr. HICKS. I should say so, definitely; yes. That is, it is capital that is not in any sense highly speculative; it is simply the type of loan for which there is now no existing machinery. It falls into the territory which lies between that of the commercial banks and that of the investment banks, either as to the nature of it or as to the size of the loan. I am not now speaking of the highly speculative ventures, but those that are sound; those which have security that can be put behind them; those that can be granted to industries which have good records, to people who are known to be good managers, but transactions of a nature for which there is now no formal machinery, so that the money is either not obtainable at all or is obtainable from private sources at costs which throw the industry out of competition, makes it difficult or impossible to operate.

The CHAIRMAN. Now, these undertakings have a certain market?

Mr. HICKS. Yes, sir.

The CHAIRMAN. In other words, if the loans were available, there would, in your opinion, be no question about a satisfactory return upon the capital and a satisfactory market for the production?

Mr. HICKS. That is true, Senator. That is, of course, unless general conditions blew up, or something like that. I mean they are secure as most any industry can be. I think there is hardly a day passes that some industry in the community doesn't bring in evidence of business that could be secured if its plant facilities could be expanded to handle it, or if working capital could be made available to handle it. A number of instances come to us of business that could be given local manufacturers.

I brought one that came into my office about an hour before I left that is a typical instance. The Pennsylvania Power & Light Co., which serves our community, received from one of their New York agents a report of a manufacturer who is interested in farming out a contract for pajamas to a needle plant, five or six hundred dozen per week. We have seven plants in our community in this particular type of work; that is, they are in the garment-manufacturing business, using the type of operators and the type of equip-

ment that could be absorbed in this work. Every one is working to capacity; none of them has the financing to expand its capacity. This particular one I have not yet taken up with the local plants, but I know from previous experiences exactly what the answer is going to be in every case. "If you can tell us how we can get 50 or 75 more machines in our plant, we will tell you how to handle that order."

The CHAIRMAN. That is the universal answer, you say?

Mr. HICKS. Yes. The needle industry has been one which has grown very steadily in our community; every one that we have there started small, and is growing larger. We have one operating now with 550 employees that started with 45 people less than 10 years ago. We have another one that started on a shoestring and 20 people years ago; it now owns its own building and just built an addition to it and is employing 250 people. They are expanding out of their own resources as well as they can, but they are working at capacity; they haven't the capital funds available to expand more rapidly; they simply have to take it one slow step at a time, and we re not able to get such funds for them in most cases; occasionally we can.

The CHAIRMAN. What is the chief obstacle to getting the funds?

Mr. HICKS. The fact that their collateral is not of a type that can be used to finance a loan at a reasonable cost. In a great many cases they can get it from some commercial finance companies, but at a cost they can't pay and compete.

Representative WILLIAMS. In what way do you help them?

Mr. HICKS. Well, in some cases we work with the banks; there have been, I think, six cases in the last year where we have gone to the banks after a bank has raised objection to a loan and found some way of working it out, so it was acceptable at the banks. In some cases the banks refer them to us. There are some cases where we have been able and willing to put a guaranty or an endorsement of our industrial fund behind a loan in order that it could be granted on conditions where otherwise it would have been refused. I want to make it perfectly clear that although the banks in our community are conservative banks, they are striving very hard to cooperate in this problem, not only stretching the rules but sometimes stretching them quite a way in order to get some things going.

Representative WILLIAMS. Do you use your own fund for that purpose?

Mr. HICKS. Well, our fund is primarily for the development of new industry and new pay roll. We have not up to this time used it as a loan fund; we have sometimes tied up temporarily part of it on an endorsement or guaranty.

Representative WILLIAMS. Now what is your plan? What kind of financial or banking system should be set up in order to meet the situation?

Mr. HICKS. Well. if I may make some suggestions, I tried to develop this in as definite form as I could.

Representative WILLIAMS. I think that is perhaps what we want here; I think we generally know the situation that exists; the question with us is to try to find some means to meet the situation; we will be glad to have any suggestions.

Mr. Hicks. Based on my almost daily contact with this problem I wish to make these suggestions respectfully to your committee. If financial needs of small industries are to be met by governmental action, the following factors appear to be essential. First, such action should be taken to provide capital loans because that is where the necessity arises; capital loans longer in term, more flexible as to the required collateral and more liberal as to the use to be made of the proceeds of the loan than the present types of banks or governmental loans.

Representative Williams. Now, that is just a general statement. What kind of a system shall we set up to do that?

Mr. Hicks. Well, my proposal, to make this shorter, is this. It can be done by one of several methods. I believe whatever method is employed in the first place that such financing should be based upon local initiative and local participation in some form. I believe, for example, that they should be based upon, first, the soundness of the borrower; that is, the soundness of the assets he has; not necessarily the speed with which they can be liquidated, but the essential soundness of the assets of the borrower himself.

In the second place that they should be based upon the borrower putting up in cash part of his own requirement. If it is a loan for real estate purposes or for machinery or equipment, at least 20 percent I should say should be a required investment on the part of the borrower himself.

I believe in the third place that such loan should be initiated locally, either by a bank or a group of banks, or a local community industrial fund, and that whatever financial organization locally initiates such loan should also participate to at least 20 percent. As to the balance, I believe that that can be practically and safely and wisely handled by Federal Government action, either in the form of insurance of 60 percent, let us say, up to 60 percent of the necessary total financing, or by Government participation on an equal basis with the local agency.

The Chairman. When you speak of Government participation, what sort of participation do you mean?

Mr. Hicks. Well, the type of participation which the R. F. C. now proposes with certain loans that they grant.

Representative Williams. We have that system, haven't we?

Mr. Hicks. We have that system, sir, but it isn't working because the standards that are laid down are the standards that the small business cannot meet. That is, a small business can now get an R. F. C. loan by meeting the same standards as to the type of assets presented as collateral that are required by a commercial bank; in other words, if you can get it from the R. F. C. you can get it at home from the bank.

Representative Williams. In other words, we have the system; it is just the administration of it that is off?

Mr. Hicks. I think that the rules that are laid down for it, the standards that are applied to it, are not practical for the loan, for the small business. The F. H. A. system is satisfactory, but the F. H. A. system does not extend to mortgage loans on industrial plants under most circumstances and does not extend to mortgage

loans on equipment. Yet I believe that that could specifically be extended to meet this need, by requiring local participation but granting insurance up to a reasonable degree under conditions that are sound and safe.

There has been some testimony before the committee as to the length of loans, loans based on industrial equipment. I don't believe you can lay down today a standard length that is applicable. There is a great deal of industrial machinery and equipment which now becomes very quickly obsolete and on which a 5-year loan, liquidated over a 5-year period by monthly installment is probably the longest safe standard. There are other types of machinery and equipment on which 10 years would be a safe standard. There are very few on which a loan extending beyond a 10-year period would be a wise or a safe standard. I think that would have to be flexible. That is one reason why I believe that any governmental action should be based upon local initiative and local supervision because of local participation.

Representative WILLIAMS. Well, now we have, as I understand it, everything that you have described, except extending the insurance feature to industrial loans?

Mr. HICKS. Yes, sir.

Representative WILLIAMS. Would you be in favor of putting that in the F. H. A. organization?

Mr. HICKS. I would as to loans on industrial real estate and loans on industrial equipment, except that whereas the F. H. A. now has an 80-percent standard, I believe for this type of investment it should be 60 percent rather than 80; that is to say, 60 percent of the total investment involved, the borrower risking at least 20 and local participation agency risking at least 20; in other words, I think there should be some definite element of risk in the local participation.

Representative WILLIAMS. It would not be necessary, then, in your opinion, to set up a separate organization in the Government to insure industrial loans?

Mr. HICKS. I don't think so, sir, although you might have to develop a special section in an existing agency in order to have men who are specialists in this type of thing.

Representative WILLIAMS. And it would not be necessary to set up a separate organization in order to handle participating loans of local institutions?

Mr. HICKS. I think with reductions of some of the standards in the R. F. C. it might be handled there.

Representative WILLIAMS. We have everything, it seems, already set up; it might be just a matter of extending the law as applied to industrial loans under the F. H. A. organization and remodeling the rules and regulations of the R. F. C.?

Mr. HICKS. It might involve some amendment either of the banking laws or of the examination standard of some governmental agencies as applied to banks, so that a bank entering into a long-term loan on a participation basis, a loan of the nature of a capital loan, can get by. You know we have cases today in our banks of loans that are sound as they can be, that the examiner of the F. D. I. C. requires to be listed "slow loans" not because there is anything wrong with them but because they have stood for some time.

Representative WILLIAMS. You recognize a very fundamental difference between the insurance on industrial loans and on the homes of the country?

Mr. HICKS. Yes; there is.

Representative WILLIAMS. Essential, fundamental difference, isn't there?

Mr. HICKS. Yes; there is a difference.

Representative WILLIAMS. A very essential, fundamental difference, isn't there?

Mr. HICKS. Yes, sir.

Representative WILLIAMS. And do you think it is safe to insure industrial loans by the Government?

Mr. HICKS. I think it is safe to insure them, provided there is a sufficient degree of local participation and local initiative so the Government is assured of a close local follow up and supervision.

Representative WILLIAMS. Do you mean by "local participation" a certain percentage of the loan or of the project put into it by the owner or by some local lending institution?

Mr. HICKS. Both.

Representative WILLIAMS. What equity do you think a man in business should have in the property?

Mr. HICKS. In the case of a loan of this type, in the first place, I think he should have assets enough to warrant the loan, but that the standard of judging those assets should be different from those now applied in commercial loans, where the speed with which assets can be liquidated is now the standard. I think it should be the soundness standard rather than the speed at which they can be realized on, as a starter. I think then in a loan which represents additional capital, for whatever purpose the loan is to be applied, whether the expansion of present building, the purchase of new building or purchase of machinery, the purchase of equipment, or the addition of working capital, that owner should have and put in at least 20 percent of the total financing proposed.

Representative WILLIAMS. I have heard that Lloyd's will insure anything in the world except to insure that one man or any man will pay his obligations. Is that true?

Mr. HICKS. I don't know.

Representative WILLIAMS. I have heard that statement, and I was wondering whether you knew that was true or not, that they will insure any kind of risk in the world except the very thing you are asking the Government to do here.

Mr. HICKS. Well, what I am suggesting that the Government do here I believe can be done on a basis which is sound. I believe that it can be done on a basis where the risk of loss and the percentage of loss is relatively small. It simply means setting up machinery which will cover for the small business financial needs which for large business are now available in our existing system.

The CHAIRMAN. Of course, Mr. Hicks, every step that we take by way of the expansion of Government participation in private business is an expansion of big government, and it tends to turn business over to the Government and change the function of Government from the original conception of an organization designed to preserve order to a new organization to carry on the actual functions by which men live.

Mr. Hicks. Senator, in theory I do not believe in participation of the Government in private business. In this particular type of problem I don't know any other answer.

The Chairman. That is what I was going to ask you, whether you have pursued an inquiry as to what might be done to stimulate the private financing of loans of this character.

Mr. Hicks. I want to make this clear, Senator. We have tried not to sit around and wait for the Government to do something.

The Chairman. I think that is evident from your testimony.

Mr. Hicks. We have attacked every case on its own merits and tried to work it out. We have one manufacturing concern going in our community today that we have been able to develop capital financing for to the extent of over $200,000, and I think we can expand it some more if we have to, and I can recite numerous cases where by one method or another we have been able to work it out, but the point is that the difficulties in most of these cases are almost unsurmountable or entirely unsurmountable, and for the cases that we can work out, there are a great many that we can't simply because we have in established private business today no machinery set up to handle the type of thing that is allowable under the law except certain types of private financing which run in cost beyond the reach of any concern in a highly competitive industry.

The Chairman. Would it be impossible for private concerns to operate at a lesser rate than that which is now being charged, and which you describe as an obstacle to the very type of business that they are trying to carry on?

Mr. Hicks. Senator, I think in some certain types of that business the rates have come down some as they have worked the thing out and found it is practical. But they are operating on a basis whereby they not only pay interest on the money they in turn extend, but they have certain services and expenses to carry. It is simply the costs that are added into the picture all along the line that the fellow who borrows the money eventually will pay. The local bank sends its money in to the New York bank and gets 1¼ percent; the New York bank, in turn, loans to one of these commercial credit organizations at perhaps 2½ or 3 percent; that credit organization sends it up to its office in our town, which goes out and finances the accounts receivable of one of our industries on a basis where the rates range from 9 to 18 percent. The money started in the local bank—it is local funds, but it has run all the way around the circuit. By the time it lands back where a borrower can get it, instead of being able to finance himself at 6 percent, he is financing himself at 9 or 12 or 15 or 18 percent.

Representative Williams. Why not organize a new finance corporation in that community and lend it at 6 percent?

Mr. Hicks. Sir, we have under discussion now a plan which I think may work out which is exactly along the lines you are suggesting, because I say we are trying to solve this problem without throwing it into the Government's lap. We have established in our valley a silk weaving industry. That industry in the last 3 years has shrunk about 50 percent. Unless something is done about it, I think the other 50 percent will pass out of the picture within 2 or 3 years, because it is an industry which is out of competition. The silk-weaving industry has very largely moved to the South. They have

gone into the South with new plants equipped with modern automatic looms. We do not have a plant in our valley that is equipped with modern automatic looms. We haven't a modern loom there. They are all the old-type equipment, and the equipment and the labor cost involved in running it is putting them out of competition.

The only way we can hold that industry, and perhaps redevelop what we have lost from it, is to find some practical basis whereby those plants can be reequipped with modern equipment. They are companies which, with perhaps one exception, are financially sound and safe, and we are proposing—we have under discussion right now—the development of an industrial equipment corporation for the purpose of financing that equipment, the idea being to develop some fund locally, requiring the purchaser to chip in a share of it. We will try to put up a share of it, and try to borrow the rest of it commercially, using the machinery and equipment as collateral. We have had some discussion about it, and I think eventually, I mean within a matter of weeks, we may work it out.

Representatives BARNES. May I ask a question? As I understand it, your main objection and trouble in getting working capital is because of the fact that premium rates or interest charges or carrying charges are too high for the individuals to take money from the commercial market; therefore you want the Government to go in, whereby you can get lower rates.

Mr. HICKS. No; the reason that the procedure which calls for these high rates is necessary is because they are the only available source.

Representative BARNES. If the Government did participate, would you want them to add on a premium over and above the normal interest charge to carry these kinds of loans, or should they?

Mr. HICKS. If the Government is participating, I don't know why it should be necessary; that is to say, if, for example, you have a capital loan involving, let us say, $10,000, it is for the purpose of buying machinery at a cost of $10,000; the purchaser chips in, let us say, $2,000, which is all the cash he has got; a local bank or a local industrial fund puts up $2,000; the Government puts up $6,000; that is to say, it is $8,000 of financing which is shared one-fourth to three-fourths between a local agency and the Federal Government, or insured to the extent of $6,000 by the Government.

In the event of insurance I think, for the sake of the added protection, a local lending agency should be obliged to turn back into the Government part of the interest charge that is involved. If it is participation, I don't know any reason why, if the Government is taking part in the loan, they should require more than the normal rate of interest.

If it should be necessary to work out a plan of that kind to go above the normal rate of interest, I think that the necessary charge would still keep it very much under present available sources of capital loans.

Representative BARNES. If the charge is so excessive today and the investor can make such a large return on his money, why are not more people going into it?

Mr. HICKS. Because most industries won't borrow it. The money is available to them, but they won't go get it. That is why I say, if capital funds could be made available, we could very largely within a year increase employment right in our own community. The industries that can get funds only by that method prefer to operate with

what they have got and as they are, and not take the risk—not go ahead. Very little of it actually is being used. In a number of cases we have called to the attention of industries that they could finance their accounts receivable to obtain capital for a certain purpose. As soon as they saw the charge, they abandoned the idea entirely.

The CHAIRMAN. Are there any other questions?

Mr. DAVIS. Mr. Hicks, I understood you to say that since January 1938 you had succeeded in establishing in your community eight enterprises.

Mr. HICKS. Yes, sir.

Mr. DAVIS. Would you describe the character of those enterprises or the commodities which they manufacture?

Mr. HICKS. Yes; I will be very glad to, Judge. The 8 enterprises represent approximately 1,200 added jobs, or will. There are 2 of them that are still in the process of developing their operations and will not have their full force of employees built up until midsummer. One of them is an oxygen manufacturing business, or, at least, it is developing into that. It started out as a dry-ice manufacturing plant and is now going into other oxygen developments. It is a branch of a national corporation.

The second is the redevelopment of a branch of a can-manufacturing company, also a branch of a large national corporation, which had closed its local branch and was persuaded to come in and reopen. It is now building it up on certain types of cans which can be marketed from our location to advantage.

Mr. DAVIS. Which was the company that established a branch canning plant there?

Mr. HICKS. Continental.

Mr. DAVIS. They had ample capital; did they not?

Mr. HICKS. No capital problem was involved in that particular case, and in some of these cases it was not involved. In others it was. I can indicate the capital problem where it was involved, if you wish, sir.

The third one is a silk throwing plant. That was started by local people and was financed locally, and has been financed locally to the extent of twenty to twenty-five thousand dollars; that is, they got several individuals who had ample funds locally to go into partnership with them. They were two young men who had been brought up and trained in one of the local silk plants.

Mr. DAVIS. The silk throwing industry is not centralized into a few companies, is it?

Mr. HICKS. No, sir: I guess we have 30 companies engaged in the silk-throwing industry in our valley.

Mr. DAVIS. And many in other communities?

Mr. HICKS. Yes; that is true.

Mr. DAVIS. In other words, it is not a highly monopolized or centralized industry.

Mr. HICKS. No, sir; it isn't, but it is a highly competitive industry, and anybody that goes in it has to finance at a competitive cost.

The fourth one is a pants manufacturing concern, which was started up by a man who had been an employee of another needlework concern locally. He started with his own capital. Our only financing there was to finance the alterations to a building, which

we were able to work out because the amount required was not beyond our reach.

Mr. Davis. That is another highly competitive industry, is it not?

Mr. Hicks. That is a highly competitive industry; yes, sir. That industry, incidentally—the man going into that had $25,000 in cash. His business has now reached the stage where he is going to need some further financing of working capital. That is a problem coming up to us within the next 2 or 3 weeks. He is growing pretty well. He has about 100 people working for him now.

The next one on my list is a silk weaving plant, which was opened last June. It has been running steadily on 3-shift operations since with about 150 employees. To obtain the operating of that plant—it was opened by the man who owned the building—it was necessary for us to obtain, in addition to what funds he had, a loan of about 38 or 39 hundred dollars for the reconditioning of certain machinery which he owned. We were able to develop that loan from one of the banks. It was on a payment plan which would have extended over 3 years, but was paid off in 9 months.

Mr. Davis. I don't care, as far as I am concerned, for the details of each case. I was simply interested in ascertaining the character of the industries.

Mr. Hicks. I will just name the others. There was a paper-box-manufacturing concern which was moved from a city 75 miles distant. It had some financing problems, and still does.

The next one was a full fashioned silk hosiery plant, which was a new corporation, but which is operating under contract with a large and well established corporation. In that case it was necessary to finance the purchase of equipment up to $40,000. We were able to do that because the company which has this mill under contract gave us an agreement that in the event of the default of the loan they would buy the machinery from the banks for the unpaid balance of the loan. On the basis of that guaranty, we were able to handle that commercially. That is a $40,000 loan.

The next one is a slipper manufacturing plant which was moved into the community. The problem there was, to some extent, to finance on the basis of warehouse receipts and on assignment of accounts receivable. That is the case where we have developed financing up to the extent of $200,000 and will go beyond that if necessary.

There are two other cases that are reopenings of silk-throwing plants.

Mr. Davis. Mr. Hicks, you have not been able to establish a plant in any industry which is dominated by a few large units, except through the branches of some of those units; is that not true?

Mr. Hicks. That is true. On the other hand, we made very few efforts in that direction, Judge.

Mr. Davis. Why? You say you have 35 or 40 efforts under way now. Do any of those come within that class?

Mr. Hicks. Yes; I should say that there are three of them that come within that class, Judge.

Mr. Davis. Have you had any success so far?

Mr. Hicks. In two cases I think we are going to be able to work it out. In the third case, the industrial taxes in the State of Pennsylvania are probably the bar.

Mr. DAVIS. Well, now, have your investigations and your studies extended far enough for you to be able to state whether there is a resistance upon the banks and other lending agencies from large units of industry to prevent the establishment of any independent units?

Mr. HICKS. Not in our case, sir; no. As far as I know, every large corporation in the community is interested in seeing this job carried out, is subscribing to it, and is putting its influence behind it. That goes for the public utilities. Every bank in the community is a subscriber to our fund and is participating in the effort.

Mr. DAVIS. But generally speaking, you have only interested your association in undertaking to establish in your community additional units of competitive industries, made up of a large number of relatively small units.

Mr. HICKS. That is true.

Mr. DAVIS. With the single exception of the branches of some of the large companies.

Mr. HICKS. That is true.

Mr. DAVIS. Well, isn't it true that one reason why you have confined your efforts to that class of industry was that you didn't feel you would make much headway on the others?

Mr. HICKS. That has had something to do with it; yes, Judge. We tried to work on the things where we thought we had our best chance of success.

The CHAIRMAN. Do you think the principles you have been outlining here would apply only in your vicinity, or do you think this system could apply all through the country?

Mr. HICKS. I think it could be applied anywhere, sir.

The CHAIRMAN. Through the Rocky Mountain West, on the Pacific coast?

Mr. HICKS. I was in business on the Pacific coast for a number of years and some of the ideas I am working out here, I got out there, Senator. I represented Sears, Roebuck in the Northwest for a period of 4 or 5 years and had considerable contact with development work in various cities and towns there, and what I have been trying to do in my section of Pennsylvania is to get them to use some of the methods that have been employed in the West, in industrial development there.

The CHAIRMAN. Your feeling, then, is that if capital loans were made available and working capital loans were made available, it would be possible to develop industries in the West and South where industries have been lagging?

Mr. HICKS. Oh, there is no question about it, and they are doing it now to some degree, Senator. We have had branches of four local industries established in the South within the last 4 or 5 years, and every one of those cases involved some capital financing by the southern community.

The CHAIRMAN. Well now, that was done without the aid of the Government, which you are advocating.

Mr. HICKS. And without, usually, the aid of their banks. They simply raised the funds among their business houses to put it up, and I think that should continue to be done, except that if that can be supplemented, that is, where a community is willing and able, through a contribution of its business houses, to put up the money to finance

industry, if that can be supplemented by Government funds where the community initiative remains, where the community investment goes on, where community supervision will be applied because of the risk they themselves are taking, but the whole thing is speeded up, I believe that will go a long way toward solving this problem of small industries.

The CHAIRMAN. What, in your opinion, would be necessary to stimulate that sort of local private initiative without the intervention of the central Government?

Mr. HICKS. Competition is doing that now. It is being stirred up all the time.

The CHAIRMAN. You think the problem is settling itself, then, do you?

Mr. HICKS. No; I think communities are doing the best they can with what they have in a great many cases, and some that haven't been doing it are waking up to the necessity of doing it, but what they are able to do is not adequate toward the solution of the problem. Mr. Whiteside yesterday gave you some impression, for example, of the large number of small businesses there are in this country. Take in a community like the Wyoming Valley. We have 400 small industries in that valley today.

Mr. HENDERSON. You still have a problem of unemployment, too.

Mr. HICKS. Yes; yet a majority of those small industries could, if capital financing were made available to them, add to their employment and do it on perfectly sound, safe, and sensible methods. They might, in some cases, as the Senator indicated, take business from some other community by doing it, but I am pretty thoroughly sold, Senator, on what you might term the pay roll, expendable cash income, as the foundation, the keystone of our national economy. I am not here to talk economic theory. Most of what I know of economics has come from applied economics anyway, sometimes pretty painfully applied. But there is business, and my conception of it is a continually rising or falling spiral of pay roll and purchasing power; so that by developing more pay roll we are developing more purchasing power, or when we are going down we are on a downward spiral of the same sort. The only way that I know that business can be built in this country, on which you can build demand for commodities, is to have employees with an income, pay rolls, spendable income, out of which that demand must be created, and one chases the other up or chases it down. They are definitely interrelated, and which is the hen and which is the egg I don't know, but I do know they work hand in hand. We know that in our community the more pay roll we get the better off we are. That is not only a case of wanting it; we have got to get it.

The CHAIRMAN. Are there any other questions?

Mr. Nehemkis, what is your plan now?

Mr. NEHEMKIS. If it is the pleasure of the committee, I should like to continue.

The CHAIRMAN. Without a recess?

Mr. NEHEMKIS. That is, if it is the pleasure of the committee.

The CHAIRMAN. Thank you very much, Mr. Hicks. The committee is very much indebted to you.

(The witness, Mr. Hicks, was excused.)

The CHAIRMAN. Call your next witness.

Mr. NEHEMKIS. Mr. L. F. Davis, of Detroit, Mich.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. DAVIS. I do.

The CHAIRMAN. You may proceed.

## TESTIMONY OF L. F. DAVIS, VICE PRESIDENT, McALEER MANUFACTURING CO., DETROIT, MICH.

Mr. NEHEMKIS. Will you state your name and address, please?

Mr. DAVIS. Louis F. Davis, Detroit, Mich.

Mr. NEHEMKIS. What is your present occupation, Mr. Davis?

Mr. DAVIS. I am a representative of the Detroit Association of Credit Men and acting vice president and treasurer of the McAleer Manufacturing Co.

Mr. NEHEMKIS. What is the business of the McAleer Manufacturing Co.?

Mr. DAVIS. Polish manufacturers, and in addition to that also they are in the manufacturing of automobile hot-water heaters.

Mr. NEHEMKIS. How did it happen, Mr. Davis, that you, as a representative of the Credit Association of Detroit, came to be the rehabilitator, so to speak, of the McAleer Manufacturing Co.?

Mr. DAVIS. Well, in the first place the McAleer Manufacturing Co., we will say, by way of giving a little history of the company, started back a number of years ago in a wash tub in Mr. McAleer's basement at home. It grew to be an organization that was doing approximately a million dollars' worth of business a year in sales. It became one of the leading polish manufacturers in the country, and as conditions began to go into the depression stage, where the company came into financial difficulty, it attempted to get some financial help from the banks. It was unable to get it. Naturally it had to turn to a commercial loaning agency. In going to this commercial loaning agency it, of course, had to pay a higher interest rate than would normally be required from banking circles, namely paying one thirty-fifth of 1 percent interest on the 100-percent borrowing power of the accounts receivable. I say the 100-percent borrowing power, because they received only 80 percent of the funds from those particular receivables, although the interest rate was paid on the 100-percent figure, consequently giving them a much higher rate of interest than normally would appear on the surface when the interest rate was presented.

Now then, in view of the fact that funds were obtained from the pledging of these accounts receivable, due to the fact that loans could not be obtained from any other source, naturally all the funds coming in from these accounts receivable had to go directly into the hands of the finance company. They demanded that the checks be forwarded directly to them. An accounting had to be made if by error in the mailing department a check was taken and deposited to the McAleer Co.'s bank account. The finance company's auditors naturally would come into the picture every 6 months, possibly every 3 months on certain occasions, make an audit and examination of the accounts receivable, and if by chance any of the checks had, through error, got into the company's bank account instead of being for-

warded in their entirety to the finance company, of course an issue was naturally made of it.

These funds being so tied up, of course they were not available for working capital, advertising, any form of expansion, or inventory purchases, and naturally tied up the operations of the company.

In October of 1937, or prior to October 1937, let's say, business had been going along very nicely, very smoothly. As we all know, the bottom dropped out of business, practically, in October of 1937. The McAleer Manufacturing Co. had been building up an inventory in order to take care of the sales which were pending. When the bottom fell out of business this inventory was in the warehouses of the McAleer Manufacturing Co. and was theoretically frozen. It was then that they went to the banks in an attempt to get some help. Help was not forthcoming, so they resorted to the finance company.

Mr. NEHEMKIS. May I just interrupt, Mr. Davis, for a moment? They went to one bank or more than one bank?

Mr. DAVIS. They went to more than one bank.

Mr. NEHEMKIS. Do you happen to know how many?

Mr. DAVIS. Roughly, I would say three banks; two that I know of definitely.

Mr. NEHEMKIS. And all three banks declined to come to the aid of the McAleer Co.?

Mr. DAVIS. Very definitely declined.

Mr. NEHEMKIS. Am I to understand that the McAleer Manufacturing Co. is an old and established company, and in fact the United States Army today uses its polish as a standard requisition?

Mr. DAVIS. That is right. In specifying the purchase of polishes for the United States Army and Navy, the request for bids is always sent out with the particular wording inserted in it, "McAleer product or its equivalent," using it as a yardstick for the purchase of waxes and polish.

Mr. NEHEMKIS. Do you happen to know, in your present capacity as rehabilitator of this company, why it is the Detroit banks declined to come to the aid of the McAleer Manufacturing Co.?

Mr. DAVIS. I talked with a banker quite sometime ago, and again just recently. Quite sometime ago they were very cold. No attempt was made to loan, they merely saying, "Well, financial difficulty is something we don't care to get involved in, consequently we don't feel safe in making any loans." They have since changed their attitude. Just recently, an interview I had with one of the bankers specifically stated that they knew the needs of small business and knew the particular needs of the McAleer Manufacturing Co., and were they permitted to make loans they felt certain they would. Whether or not that is a rash statement or would be carried out in the event of machinery being set up for them to make loans, that I can't say.

Mr. NEHEMKIS. But would you say that in your opinion perhaps the change in the attitude, due to no small extent to the fact that you were the head of the creditors' committee, had rehabilitated that company?

Mr. DAVIS. Let me correct that statement, Mr. Nehemkis. I am not the head of the creditors' committee; I am representing the creditors' committee. That is true because after we had put considerable pressure on the banks because of the fact that business had been com-

ing along nicely in the last few months, and through the efforts of the creditors' committee, and the Detroit Association of Credit Men, we of course were able to get all the creditors to sign up. The Detroit Association of Credit Men came into the picture in February of 1938. At that time we succeeded in getting the creditors almost in entirety to sign up, and we had some $180,000 worth of outstanding accounts payable which have now been reduced in the neighborhood of $125,000 through the medium of a dividend paying off in its entirety all small accounts of $200 or under, and then of course other forms of liquidation.

Now, then, there isn't any question but what the influence of the Detroit Association of Credit Men being injected into the picture has very materially changed the attitude of the banker because we did succeed in getting a small $15,000 loan from the bank, which was in no way adequate but nevertheless we did get it, and it was definitely given to the bank with the distinct understanding that it would be paid off before any of the other creditors were paid off, and in addition to that, of course, the representatives of the creditors' committee, including myself, had to sign the note before the loan was forthcoming.

Mr. NEHEMKIS. Mr. Davis, as a credit man, experienced with the problems of business of Detroit, would you say that the testimony which this committee heard yesterday from a number of Detroit men was widespread in the Detroit region?

Mr. DAVIS. It is typical of the Detroit region. As a matter of fact, only yesterday I received a telegram. This came from my office in Detroit; that is the Detroit Association of Credit Men, and I would like to take the opportunity of reading it now, if I may [reading from "Exhibit No. 637"]:

> Association knows of at least 25 companies in urgent need of financial assistance immediately to avoid forced liquidation within a period of a few months. Adjustment bureau handled 35 liquidations during 1938 and 12 to date this year. Majority of companies unable to obtain financial assistance or an extension of time to carry on.
>
> Many concerns attempting to finance operations found it necessary to borrow on accounts receivable of which only a certain percentage became available and then only at a high rate of interest. This tied up considerable of the working capital in the reserve requirements of the finance companies. Many of the liquidations did not allow a distribution to creditors because all funds were consumed by taxes, wages, and other preferred items. If financial assistance could have been obtained at a reasonably early period of time, a number of these businesses could have been saved.

This is signed by the adjustment bureau of the Detroit Association of Credit Men.

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, I ask leave to offer this telegram in evidence.

The CHAIRMAN. The telegram may be received.

(The telegram referred to was marked "Exhibit No. 637" and is included in the appendix on p. 4120.)

Mr. NEHEMKIS. Mr. Davis, as a credit man of wide practice and experience, do you think that some Federal aid in the way of loans to small business such as the testimony you heard—if you did hear it—a moment ago would be desirable?

Mr. DAVIS. Very definitely. Now, then, there probably are a number of very satisfactory plans. I would suggest that anything of this nature be handled on a similar basis to the F. H. A. I don't mention R. F. C. for the simple reason that I think there is a lot of bad

taste still left in the mouths of a number of the small-business men toward R. F. C.; maybe that isn't justified. Maybe they should not take that attitude, but nevertheless they do, because we know of a number of specific cases that have gone to the R. F. C. and made applications and have actually been stalled off for months at a time. In some particular instances they have never even had a reply from the R. F. C., after going to the expense of preparing data, having audits made, and so forth, in order to present this data to the Reconstruction Finance Corporation. So I very definitely would say that under no consideration should that particular division be injected into the picture, because I am afraid you will scare a lot of the small-business men away.

Mr. NEHEMKIS. Mr. Chairman, I have no further questions.

The CHAIRMAN. Any members of the committee desire to ask any questions? Congressman Allen, would you care to question the witness?

Representative ALLEN. None now, Mr. Chairman.

Mr. HENDERSON. Just one item for clearing up in connection with that financing through accounts receivable. You spoke about the 20 percent that was withheld on the full amount of the accounts receivable.

Mr. DAVIS. That is right.

Mr. HENDERSON. Banks require about a 20-percent compensating balance also, do they not?

Mr. DAVIS. No; in this particular case of the $15,000 loan made to the McAleer Manufacturing Co., approximately $35,000 worth of accounts receivable were pledged in a blanket form in order to secure this loan.

Mr. HENDERSON. But as a matter of fact, grants of credit by banks to corporations of all sizes usually require that they maintain a 20-percent compensating balance, do they not?

Mr. DAVIS. My experience has been that they required a greater balance than that, greater differential.

Mr. HENDERSON. So it is not something the finance company does and the bank does not do?

Mr. DAVIS. No; the only difference between the two, of course, is the fact that the finance company interest rate is so high that in this particular competitive market today your profits are so small that very frequently it is not possible to make a profit on your particular item which you are manufacturing and selling because of the fact that the amount of money that you pay the finance company is theoretically about all the net profit that you make, so actually you are working for the finance company, rather than for your own particular organization.

Mr. HENDERSON. That is the point I was coming to next. It is not only the availability of credit but the cost of credit to existing concerns which is of very high importance?

Mr. DAVIS. Definitely.

Mr. HENDERSON. So that in any concept of the present mechanism or of new forms of lending, the rate charged to small enterprises is highly important?

Mr. DAVIS. That is just as important as the credit factor.

The CHAIRMAN. Why do these commercial credit companies charge such high rates?

Mr. DAVIS. Their answer is that the bookkeeping involved for keeping track of these various accounts is so great that it is necessary for them to charge this particular interest rate. Now as a matter of fact they are right, because if you take an organization and make a large loan of say fifty or one hundred thousand dollars to this particular organization, and have only that one loan to look after in its entirety, why your bookkeeping is much less than if you attempt to set up an accounting system for the purpose of keeping track of individual accounts receivable as payments are made on it, and that is what the finance companies do; they watch it very closely, as evidenced by the information I just gave a short while ago relative to the check up they make on the individual payments coming in on these accounts.

The CHAIRMAN. Have you any suggestion as to how loans of this kind could be stimulated through private sources, rather than through the Government?

Mr. DAVIS. No; at the present time I haven't, Senator, because I haven't gone into that particular angle of it. It is a rather lengthy study and not being an economist I hate to get tangled up in it. I would be only too glad to gather information, and rest assured it couldn't be done overnight. A good sound policy would have to be formulated before we attempt to inject any fly by night schemes into the picture which naturally would fall down in the end.

The CHAIRMAN. Your opinion is that the commercial credit companies cannot very successfully reduce their rates?

Mr. DAVIS. I have a conflicting opinion in my own mind about that. I am going back a few years and give you a little picture of something else. We are all familiar with credit unions throughout the country. Credit unions, I think, sprung up in the country as a result, or let us say as a necessity because of the fact that small-loan companies were charging high interest rates of, we will say, 3 percent a month on unpaid balances. Credit unions were organized under both Federal and State legislation and in each particular instance had been loaning on interest rates of 1 percent a month on the unpaid balance.

Now it is true they have a little more of control over their loans because they are groups and in most cases loans are made by employees, but on the other hand a large number of these organizations have pretty fair turn-overs, or at least used to have pretty fair labor turn-over before we had C. I. O. and U. A. W., which naturally keeps the men within an organization to a certain extent. But leaving the union situation out of the picture, when these turn overs were great, possibly 15 or 20 percent of the borrowers in a particular organization, and a large one which I have in mind at the end of 6 months' period of time would not be in that organization, so they had a credit collection problem on these particular loans. Yet in every instance, and I happen to have the pleasure a number of years ago of sitting on the board of directors of the Michigan Credit Union League, which was a unified organization of credit union membership, and they in every case were able to pay a 6-percent dividend to the depositors on a 1-percent interest rate charge per month on the unpaid balance.

Now then, if they can do it, why couldn't the small-loan organizations? Yet they claimed they couldn't. Now I maintain that where

a 1 percent a month on the unpaid balance is charged by finance companies—that, by the way, is the lowest rate they charge because this one thirty-fifth of 1 percent a day on the unpaid balance collected on the 100-percent loan figure rather than on the 80-percent advance actually amounts to about twelve and I believe eight-tenths percent, or in other words in round figures 1 percent a month on the unpaid balance. That is definitely the lowest.

Some of these loan companies get as high as 18 and 20 percent on commercial money of that nature. Now, it seems to me that loans could be made on a much smaller basis or let me say, correct that, and say on a much lesser rate of interest than what they are making them on by virtue of the fact that the credit union situation proved that small loan companies could make loans on a much smaller interest rate than what they were doing.

Mr. HENDERSON. Credit unions have a lot of voluntary work in the way of investigation done for them?

Mr. DAVIS. Let me say that the particular one I have in mind had no voluntary work. The treasurer of the company was paid; he had a staff of employees; this thing had actually developed into a business.

Mr. HENDERSON. Then they usually loan, do they not, on the endorsement of two other employees?

Mr. DAVIS. Not in all cases; loans were made on mortgage loans, automobile loans were made; all types of loans, as a matter of fact, are eligible under the Credit Union Act; at least under the State act; the Federal act I am not quite so familiar with.

Mr. HENDERSON. Pretty generally the cost of those loans, as you have indicated, regardless of where they are, tend to be made up of two parts: One, the pure interest rate which is the rate charged for the actual loan of the money; and the second is the cost of doing business.

Mr. DAVIS. That's right, Mr. Commissioner.

Mr. HENDERSON. Well, isn't it a fact that the reason why bank loans and other loans can be made is that they are loaning not only their existing funds but they are able to expand their loans on a different basis from that available to a commercial credit corporation or credit union or the like. A credit union can loan only its own funds which it actually has taken in.

Mr. DAVIS. No; a credit union may go out and borrow.

Mr. HENDERSON. But it has to borrow against its assets. It never will get any multiplier. It will never be able to borrow even as much again as it has taken in in the way of deposits. A bank, however, can sometimes loan eight or nine times as much as it has taken in.

Mr. DAVIS. That is right. Along those particular lines it always occurred to me as being a peculiar thing. We have heard of instances where banks have actually suggested that the individual go to a finance company, and one particular banker told me very definitely—I shouldn't say banker, probably; he was a bank manager; nevertheless he was speaking for the bank, because I later found out it was the feeling of this particular organization—specifically that they would much rather these smaller borrowers would go and get their money from a finance company, because they in turn would immediately loan their money to the finance company if the finance company needed funds, and I think if you check up on the finance com-

panies you will find they have loans with banks amounting to three, four, five, or six million dollars, so they are getting the money at a bank and immediately loaning it at a profit, which is natural, but why should a businessman have to go to a loaning agency for the funds? If it isn't a risk for the finance company it isn't a risk for the bank.

Mr. HENDERSON. But there is a cost to a bank doing business with a large number, rather than doing business with one finance company. As you have said, there is a cost in maintaining supervision over accounts receivable, and so on.

Mr. DAVIS. I don't think, however, the supervision of the type which the finance companies give is necessary, because if they are loaning to reputable small businesses they are going to get paid. I don't think the American businessman is dishonest. It is true we find some of them that are, but they are this type of fly-by-nighters who start up with $50 in their pockets and 3 months from now they are out of business again. Incidentally, these figures given in the telegram do not apply to those small organizations which I mentioned. These are only reputable good sized organizations mentioned in this telegram, because I had a conversation with the Detroit office after this telegram came in to verify these figures.

Mr. NEHEMKIS. Mr. Chairman, may I ask the committee's indulgence for 3 minutes in order to call a member of my own staff to authenticate a memorandum which I desire to offer and which summarizes our inquiry into the Detroit region which the committee has been listening to?

Mr. DAVIS. May I say one more thing?

The CHAIRMAN. Proceed.

Mr. DAVIS. There is one definite point I think should be brought out. We have heard a lot about credit, but if something isn't done to more or less curtail or arrest unfair practices on the part of larger companies any credit help that will come to the smaller companies will only be a job half done. We know of one particular case where the product of an organization was on the shelves of various merchants throughout the country, and because of the fact that that particular product had a pretty good salable value, let's say, and because of the fact that the larger company was attempting to more or less dominate the field in this particular industry, it had gone into these small merchandise stores, jobbers, and so forth, and offered on a dollar to dollar value their merchandise for the merchandise of their competitor, in turn for which, or in addition to which, at the regular price, they sold an equal quantity of merchandise. In other words, if I had $50 worth of merchandise in my store, they came in and sold me $50 worth of their own merchandise and in turn gave me another $50 worth of merchandise in exchange for their competitor's product which was on my shelves. They in turn went out and sold this merchandise at a demoralizing price of, say, 25 percent of what the cost of manufacturing that product was. When the salesman called on these distributors and individual salesmen for the purpose of selling his product he was met with problem of, "Why should I buy your product and pay, let's say, 20 cents for it, when I can step out through some of these dumping agencies and buy it at 5 cents?" The answer was that this company that had taken the merchandise of their competitor off the shelves had turned around

and sold it to dumping organizations throughout the country, and that merchandise found its way back into circulation again at a price of 2, 3, 4, or 5 cents a can. That does exist. And the particular organization which I have in mind, knowing that something might at some time or other be done about this, has now approached this particular company through its attorneys for the purpose of purchasing the company toward whom they had committed this offense.

That is something that has to be stopped, because as I said before, credit will not help small business unless unfair practices of that nature are also curtailed.

Mr. NEHEMKIS. Thank you very much.

The CHAIRMAN. We are very much indebted to you.

(The witness, Mr. Davis, was excused.)

Mr. NEHEMKIS. Mr. William Whitehead.

The CHAIRMAN. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. WHITEHEAD. I do.

## TESTIMONY OF WILLIAM WHITEHEAD, SECURITIES AND EXCHANGE COMMISSION, WASHINGTON, D. C.

Mr. NEHEMKIS. Will you state your name and address, please?

Mr. WHITEHEAD. William S. Whitehead, Securities and Exchange Commission.

Mr. NEHEMKIS. Are you a member of the staff of the Securities and Exchange Commission?

Mr. WHITEHEAD. For the past 4½ years.

Mr. NEHEMKIS. And you have been recently engaged in a study of the needs of small business in the Detroit area?

Mr. WHITEHEAD. I have.

Mr. NEHEMKIS. And you have been working recently in the Detroit area?

Mr. WHITEHEAD. I have.

Mr. NEHEMKIS. In that connection you have had occasion to interview many small-business men?

Mr. WHITEHEAD. Quite a few.

Mr. NEHEMKIS. I show you this memorandum and ask you to identify it, reading, if you will, the title.

### CAPITAL NEEDS OF SMALL BUSINESS—THE DETROIT AREA

Mr. WHITEHEAD. This is a memorandum addressed to the Temporary National Economic Committee from the Investment Banking Section, Monopoly Study, Securities and Exchange Commission. It is a composite survey of the capital needs of small businesses in the Detroit, Mich., area.

Mr. NEHEMKIS. Will you proceed to read the salient paragraphs only, Mr. Whitehead?

Mr. WHITEHEAD (reading from "Exhibit No. 638"):

> During the period from April 17 to April 29, 1939, inclusive, officers, partners, and proprietors of 67 small businesses were interviewed and information elicited concerning their need for additional working or equity capital. * * *
>
> These 67 companies, each of which have been in existence from 1 to 30 years, showed total assets ranging from $9,000 to $1,000,000, with an average

for each of approximately $46,000. Two of the companies reported the recent filing of bankruptcy proceedings.

Officers of 55 of these companies indicated a willingness to avail themselves of the facilities of a Federal credit agency for small business if same were created, while 48 companies reported the immediate need for either additional working or equity capital or both.

Of these 48 companies, practically all considered themselves able to pledge or collateralize various of their assets.

Thirty-seven of these 48 companies had been refused bank credit for various reasons within the past few years while 14 have been granted aid. Seven have been refused R. F. C. or Federal Reserve Bank loans, while two have been aided by the R. F. C. Twenty of the thirty-seven companies are presently borrowing from finance or loan companies, each paying from 13 percent to as much as 24 percent per annum in interest charges with the consequent tying up of assets.

The 48 companies are in need of a total of $586,000 for working capital for a period of from 3 to 9 months and $775,200 for equity capital for a period of from 3 to 10 years. With this aid officers of these companies estimate that approximately 1,080 new employees could be hired, or 1 person for approximately every $1,300 in new money obtained.

On the basis of the above, each working-capital loan need averages $12,200 while each equity-capital loan need averages $16,100. Thus the average combined working and equity capital loan mounts to $14,150.

The 48 companies estimate that an operating economy of from 2 to 5 percent could be effected if additional equity capital were made available, while an operating or debt cost savings of from 4 to 15 percent could be effected if additional working capital were secured.

From the latest financial data available on 47 of these 48 concerns there is shown a combined total of $244,232 of cash, $758,168 of receivables, $923,623 of payables, and $471,992 of loans, which includes one loan obtained from the R. F. C. amounting to $250,000.

This memorandum is signed by myself and Lloyd C. Mathers and Ernest Jerome Hopkins, and dated May 23, 1939.

The CHAIRMAN. How many of the applications for loans which were rejected were actually unsound applications which couldn't be expected to pay out under any circumstances?

Mr. WHITEHEAD. You mean to the Reconstruction Finance Corporation?

The CHAIRMAN. Or to the bank. You referred to the rejections for various reasons, at the beginning of the memorandum.

Mr. NEHEMKIS. Did you have occasion to examine into any of those reasons?

Mr. WHITEHEAD. We did. As a matter of fact, loans had been made in each case by finance companies where they had been rejected.

Mr. NEHEMKIS. But you are not personally familiar with the reasons why any other agency may have declined to grant that loan.

Mr. WHITEHEAD. I am not.

The CHAIRMAN. Have you any opinion as a result of your investigation as to whether or not those loans might profitably have been made by some institution?

Mr. WHITEHEAD. My own opinion, and I speak only of myself with respect to those with whom I talked, is very definitely that they would have been eligible for some line of credit if certain things had been just to the willingness or likes of the banker.

The CHAIRMAN. Of course, many people would like to borrow money who can't pay out. Their own judgment may be that they can pay out, but an impartial examination of their cases would indicate that a loan would be unsound.

Mr. WHITEHEAD. Of these 67 companies that we refer to, we have presented to the committee four, and I dare say they are typical of the instances.

Mr. NEHEMKIS. I would like to offer this memorandum which has been identified by the witness. It might be offered in its entirety, since he did not read the opening paragraph.

The CHAIRMAN. Very well.

(The memorandum referred to was marked "Exhibit No. 638" and is included in the appendix on p. 4120.)

Mr. HENDERSON. May I ask just one question? On those rejected loans, I understood you to say that after rejection they had been made by finance companies. That was because they took the risk and charged a higher rate?

Mr. WHITEHEAD. That is correct, Commissioner.

The CHAIRMAN. In that statement you said that officers of 55 of these companies indicated a willingness to avail themselves of the facilities of a Federal credit agency. Is it your opinion that all 55 of those would have been good risks for a loan?

Mr. WHITEHEAD. Of those 55, Senator, I personally contacted in the neighborhood of 22 or 23. My own opinion is that they would be good credit risks.

The CHAIRMAN. Thank you.

(The witness, Mr. Whitehead, was excused.)

The CHAIRMAN. The committee will stand in recess until 2:30.

(Whereupon, at 12:35 o'clock, a recess was declared until 2:30 p. m. of the same day.)

AFTERNOON SESSION

(The hearing was resumed at 2:50 o'clock upon the expiration of the recess.)

(Mr. Henderson in the chair.)

Acting Chairman HENDERSON. Are you ready to proceed with your witnesses?

Mr. NEHEMKIS. I am.

In calling the next witness we are particularly fortunate in being able to have the views of an individual who has seen the problem of small business from the Atlantic coast straight through to the Pacific coast and has a more integrated view, perhaps, than any other member of our own staff has been able to gather because of the necessity of concentrating on certain regions. I call Mr. Ernest Hopkins. Mr. Hopkins has already been sworn before the committee.

## TESTIMONY OF ERNEST J. HOPKINS, INVESTMENT BANKING SECTION, SECURITIES AND EXCHANGE COMMISSION, WASH., D. C.—Resumed

Mr. NEHEMKIS. Mr. Hopkins, you and your associates have been making a study of the needs of small business in Seattle and in Portland, have you not?

Mr. HOPKINS. The Portland survey is not yet fully completed.

Mr. NEHEMKIS. And the Seattle study is still under way?

Mr. HOPKINS. It is virtually complete.

Mr. NEHEMKIS. And you are prepared, therefore, this afternoon, to present certain preliminary findings in regard to the Seattle situation?

Mr. HOPKINS. I am.

Mr. NEHEMKIS. Will you proceed?

(Senator O'Mahoney assumed the chair.)

### CAPITAL NEEDS OF SMALL BUSINESS—THE SEATTLE AREA

Mr. HOPKINS. The Seattle situation can really be summarized quite briefly, I hope.

Here is a community that had, historically, roots in three types of big business, railroads, lumbering, shipping. Historically, all through the past, or in its original past, all three of these enterprises were of the old slashing pioneer, rather high-handed type. They built the community and the community became as communities always are, a small-business community, but small business in Seattle grew up under the aegis of these big fundamental enterprises, which were increasingly absentee-owned.

Today the situation is that those three big fundamental enterprises have flattened out considerably. Small business inherits certain problems which are willed to them by the big business origins, and those problems now constitute the embarrassment of those who have the community at heart. To specify: Railroading, which initially had much to do with founding the community, has flattened out and is in a static condition, no longer contributing expansion to the life of the community.

Shipping, due to Oriental developments and South American developments has largely come to a standstill, and the only foreign boats in the port of Seattle are Japanese. A tremendous lot of small-business activity which should characterize a seaport is in a state of suspension, due to circumstances far remote from Seattle itself and far out of its own control.

As to the lumber industry, it is active but it is broadcasting to the world that it is in a condition of liquidation. That is to say, the avowed policy of the lumber industry at the present time is to cut down its forest holdings, apply them to the debts that ride it, debts piled up in the past, and with a certain hope that the trees and the debts will come out even.

The industry says it is a liquidating industry. Lumbering of course in that area has only been a form of mining at best. The idea of cutting those forests on a replacement basis never got to first base. To make that picture slightly more specific, there are smaller units and larger units within the lumber industry, and we selected a medium-sized lumber unit to dramatize that particular picture. I will give you very briefly some of the things we ascertained.

This is a concern with $9,000,000 capitalization, ranking as a medium-sized lumber concern—$9,000,000 capital and surplus. It has a 100-mile railroad, four sawmills, three planing mills, and four other mills, taking that timber out. Its fixed charges, largely due to debt costs, are $1,000 a day, $30,000 a month. Those charges go on whether it runs or closes down. It owes $238,000 to the banks, $423,000 to the R. F. C. Every iota of its timber, its railroad and its mills is now mortgaged and it can get no more credit. If it

shuts down, it loses more on fixed charges than if it runs, and that is the reason why it is running; it slightly reduces that loss of $1,000 a day on fixed charges.

Its costs have steadily mounted in virtually every respect. Now its management states that it is simply intended to cut down that timber and quit. There is no prospect of new expansion, the machinery is not the most modern in the world, it could be considered obsolescent, the utilization of byproducts and that sort of thing would require new investment and is not being done, and according to the West Coast Lumber Association that is a very typical picture of what is going on in the basic industry that has supported the Seattle community more than any other for many years past.

Now this community meanwhile is certainly at the present time not unprosperous. There is a good deal of building—it ranks quite high among the cities in respect to new building. Employment conditions are good and the credit relations of small business are on the whole harmonious. The banking situation has been greatly affected during the last 2 or 3 years by the policy of one very vigorous and progressive bank, which definitely went in for commercial loans, sent men out looking them up, and decided to freeze a certain amount of its money in local business and local industry, and by so doing stepped up its profits, and by competition has forced the hands of the other banks until they are very largely following suit. I needn't read you the figures but you will find a higher ratio of money outstanding in commercial loans in Seattle than you will find in any of the cities that I have examined, and among the best in the entire study.

There are some peculiar conditions that affect small-business conditions in the city. There is a credit men's association backed by some 400 local business men, which not only investigates the credit of individual concerns, but virtually it is as near to replacing a court, an informal bankruptcy and credit settlement agency, as anything could be. When a concern is embarrassed, this credit association calls the creditors together, makes them prove their claims, figures out the assets of the given business and what can be done about it, handles the collections from the business, prorates them among the creditors. When liquidation proceedings are on, it handles the liquidation proceedings, making the actual collections from the business, and the payments.

The courts consider that that arrangement takes a great deal of trouble off the hands of the courts.

There is some implication that at times the operations of that organization have not been completely neutral. It, after all, is a local agency and the lines along which its influence may run might be swayed by certain considerations within the community. But, on the whole, it seems to work very well.

There is another rather special condition that has operated as a handicap to small business in getting immediate working credit. There is a decision in a legal case, *Failes* v. *Siples* (171 Washington p. 630), when the court ruled that one whose account is assigned in the hypothecation of receivables must be notified of such assignment, and not only are secret assignments of accounts or confidential assignments forbidden, but a bank or financial concern that accepts a

receivable as security must take over "supervision, domination, and control" of the account.

The operation of that decision, which has many more details in it than I have quoted, has made the banking institutions hesitate to accept receivables because it lets them in for such a tremendous amount of supervision of each account. This the banks have striven to overcome by lending more freely on personal notes and other types of security than I think they do in many other communities.

Those two features are peculiar.

I asked of a liberal bank official in Seattle one question I had been wanting to ask a banker for a very long time. This bank official was in charge of commercial loans to small manufacturing and very close to small manufacturing. The question was this: Can you list me, from your experience, the names of any concerns at all that have applied to your institution for loans, where their applications have been rejected due to banking restrictions which you yourself are controlled by, yet you, in your heart, knew or felt that that concern was credit worthy and would have paid the loan?

He thought for about 5 seconds, sat down, and wrote me seven. I checked on five cases, I and the other investigators, of these seven loan applications that had been rejected whereas the banker himself felt they should have been granted. It seemed that that demonstrated definitely that there are rigid banking restrictions which even very good and liberal banking officials themselves may find obstructive. Furthermore, it appeared the competitive situation between the banks in that community showed that under the same restrictions one bank can adopt a liberal policy whereas some others may take advantage of the restrictions to be illiberal.

Those cases may be very briefly summed up. One was an old line printing concern, one of the oldest in Seattle. It needed modernized equipment and its business was off because it hadn't modernized its equipment, and because its business was off it couldn't get the loan.

One was a school book concern which did $45,000 worth of business annually, 80 percent of it inside of a month or 6 weeks when the schools opened, and because it had a yearly rhythm and the bank was lending on the short term, it was unable to obtain credit.

One was a machine shop, and a good one, the only asset of which was the skill and honesty and energy and inventiveness of the man that was building it up. He had got much material on credit from supply sources and wasn't a banking risk. Personally, I think the banker would have banked on him.

One was a leading building-supply concern in Seattle and the only thing wrong with that concern, which was doing a lot of business and making money, was that back in the pit it had contracted some heavy obligations that still embarrassed it and still prevented it from being credit worthy. At the same period some of the banks were rather embarrassed themselves.

Mr. NEHEMKIS. When you talked with the banker to whom you referred a moment ago, did you have occasion to discuss with him the particular kind of restrictions that impeded his being in a position to aid?

Mr. HOPKINS. I thought it would be better to gather those from the cases he mentioned to me. He listed the cases. The restrictions

that I mention are all restrictions of frequent occurrence in other cases incident to the investigation.

Representative WILLIAMS. Who places the restrictions?

Mr. HOPKINS. Apparently the loan boards of the banks.

Representative WILLIAMS. It isn't a restriction that was placed there by the State examining authorities or the national authorities?

Mr. HOPKINS. To what extent the loan boards of the banks respond to restrictions expressed by the examining authorities is, of course, a question.

Representative WILLIAMS. Was this a State or National bank?

Mr. HOPKINS. This was a national bank.

Representative WILLIAMS. The party in charge there, this authority, didn't give you the reasons?

Mr. HOPKINS. No.

Representative WILLIAMS. For these restrictions?

Mr. HOPKINS. Not in these cases.

Representative WILLIAMS. If that is it, it is simply a local condition subject to the rules and regulations set out by the board that controls that particular institution. It isn't a State or National policy.

Mr. HOPKINS. Not so far as any indication that I obtained. I had distinctly the impression that the bank official I was talking with, who definitely knew his business, thought these concerns loanworthy. He did not tell me so in so many words, but I am pretty sure he had taken these loans up with his board and they had been rejected by the board.

Representative WILLIAMS. I for one don't see how we are going to remedy the judgment of the different bank boards of the country passing upon the securities presented to them.

Mr. BALLINGER. Could you tell what particular restrictions were placed upon each loan which would not permit the loan?

Mr. HOPKINS. You see the concerns that were denied the loans merely knew they had been denied, and they knew the nub of the denial.

Mr. BALLINGER. Take the case of this concern which had an outmoded plant and wanted to renovate that plant. What excuse did the banker give the prospective borrower?

Mr. HOPKINS. In that case, that his earnings had shown a decline, and I think there was some previous embarrassment in that case, too.

Mr. BALLINGER. Why did the banker think the loan should be made if the earnings had been declining?

Mr. HOPKINS. I think it was based on a long acquaintanceship with the concern and a feeling that if modernized it would again hold its head up in competition.

Mr. BALLINGER. That is just a matter of judgment of the bank, it is not any restriction.

Mr. HOPKINS. I think that would be true in all of these cases.

Mr. NEHEMKIS. Mr. Hopkins, it probably is correct to say that you have talked with several hundred business men throughout the country in connection with your studies, is it not?

Mr. HOPKINS. I think that is not an exaggeration.

Mr. NEHEMKIS. Is it your opinion as a result of the conversations you have had with business men throughout the country and your own previous studies on this problem that we could make a serious dent on the unemployment problem of this country if something were done to help small business enterprises?

Mr. HOPKINS. I have that impression very definitely.

Mr. NEHEMKIS. Would you venture an estimate of how far we could cure the problem?

Mr. HOPKINS. Any estimate is only a guess. There are a million and a half or 1,600,000 concerns that rank as small business. A man can't go around as I have been doing these last many weeks, talking to these men day after day, and hearing them say, "With so much capital, 20 men; with so much capital, 10 more men—I want to build up a sales organization," without getting the cumulative vision of a tremendous expansion of employment potential in that sector.

The CHAIRMAN. Well, could the question—the question, of course, to be decided is how much of that is wishful thinking on the part of those who believe that if they did get the loan they could put these people to work. Now, the loaning board of a bank considers those factors in any application that is made, and when it decides against a loan it is probably actuated by the belief that the applicant is over-optimistic in his belief as to what the profit can be. So to me it seems the fundamental question in all of this is whether or not the applicants are able to demonstrate that they have a market for the additional production that they would like to turn out, and that they can meet that market at a profit, sufficient to require the loan and make it possible for them to live.

Now there is the heart of the problem, isn't it?

Mr. HOPKINS. Would there possibly be another factor there, Senator? It would be this: That the official who knows the most about the applicant, who knows his business the most intimately, who has been out there and has talked with the man personally, and so forth, is unable to communicate verbally to a board sitting upstairs who has never seen the man, quite the same conviction that he himself possesses. You are working through a double mechanism there.

The CHAIRMAN. Banks are in the business of making loans for profit. The income of a bank is primarily derived from the interest upon the loans. Now, unless there are restrictions which are imposed by the State banking law or the Federal banking law, which circumscribe the area within which the loans can be made, the only restrictions that a bank will place upon a loan are those which arise out of a conviction that the loan will not be profitable to the borrower, or to the lender, unless for personal or private reasons members of the loan board deem it desirable that a particular enterprise shall not be started.

Mr. NEHEMKIS. Mr. Hopkins, in your numerous conversations with bank officials throughout the country, can you enlighten the committee on this point? Is it perhaps true that one reason banks do not feel they can aid small business enterprises is due, perhaps, to the fact that the kind of aid that a small business man may need in a particular set of circumstances is not the kind of loan that a commercial bank should make? What do you say to that?

The CHAIRMAN. Now let me say before you adopt the answer that the counsel has suggested to you, give me your own answer.

Mr. HENDERSON. Could I, Mr. Chairman——

The CHAIRMAN. Just let Mr. Hopkins answer.

Mr. HOPKINS. You are getting me pretty deep into practices with which I am not familiar; I am not a banker and have never been able to view these things from the inside. In their interviews the

bankers uniformly take the position they have extended all the credit they can. This Seattle banker was an exception; he wanted to extend more credit than he had been able to do because of certain restrictions. I did not analyze with him precisely who imposed the restrictions on him. It might not have been just the courteous thing to do, and I didn't go into it with him, but I did not gather that the restrictions were legal restrictions; they were restrictions of differences of judgment, let us say, and there is a wide area for the play of judgment in appraising any individual transaction.

Representative WILLIAMS. Did I understand you to say just a while ago that there had been a considerable expansion in business loaning and activity so far as the banks in that area were concerned?

Mr. HOPKINS. Yes.

Representative WILLIAMS. There has been a rather liberal attitude, I got from what you said, on the part of the banks, especially in that part of the country?

Mr. HOPKINS. I have some graphs that express that in chart form. I wasn't going to burden the committee with them, but they describe the overtaking of the level of deposits by the curve of commercial loans, not very greatly but somewhat.

Representative WILLIAMS. That curve has been upward?

Mr. HOPKINS. Yes.

Representative WILLIAMS. That hardly corresponds with what you were saying about the restrictions they have placed on the loans.

Mr. NEHEMKIS. The restrictions were due to certain special conditions in the minds of that particular board, but as you explained to the committee a moment ago, I take it that in those particular cases the man you discussed the problem with indicated that in his judgment he, as a banker, felt that aid should have been given to the seven concerns that you looked into; is that what you intended?

Mr. HOPKINS. Yes; that is what I intended to state.

Mr. BALLINGER. Well, in the case of the loan to build a new plant, is it quite conceivable that is the kind of a loan that a commercial bank should never make? I mean, that ought to be outside; that is tying up funds for quite a period of time, sort of inconsistent with commercial banking, following along the question of Mr. Nehemkis? There might be a very excellent reason why that loan might be turned down and an excellent reason why another agency should give that loan?

Mr. HOPKINS. It puts the investment under the strain of competition.

Mr. NEHEMKIS. Mr. Hopkins, in a sense does Seattle serve as the banking center for Alaskan operations?

Mr. HOPKINS. Seattle is in a peculiar position there. It is definitely the gateway to Alaska, which needs financing and which has endless unrealized potentialities. At the same time the banks find a territorial limitation there and, excepting on a basis of occasional personal notes and that sort of thing, or notes on security of property within their region, they can't do very much for Alaska. I don't understand the exact technicalities of the territorial limitation, but I do know that applications for loans for Alaskan enterprises are very frequently rejected on the ground that "It is outside our territory and we can't reach it." Seeing that the Alaskan banks themselves are not large enough to swing the demand of what is to

be done up there, that is a definitely handicapping condition over that entire large area.

I think Seattle would be very much minded to do the banking for Alaska for its own good as the gateway, but there are some restrictions, fundamentally territorial restrictions, that prevent it.

Mr. HENDERSON. Mr. Nehemkis, I have to leave to make a quorum. I would like to ask the witness a couple of questions if I may.

Mr. NEHEMKIS. Yes.

Mr. HENDERSON. I was very much interested in the witness who was testifying this morning about the Detroit area and also in Mr. Whitehead's statement as to what he found in interviewing 22 or 23 companies and in what the other investigators found in that area.[1] Although many of these smaller enterprises had applied for loans to the organized banking institutions which have their own rules and their own limitations on loans, practically all of them in fact had been refused and had gone to outside finance corporations where the rates were much higher than the banks. I wonder whether you found two things. I might say, without trying to lead the witness, Mr. Chairman, I spent 7 years on problems of consumer credit and credit for small institutions for a research agency, and I found these two things myself. A bank would say, "We have a limitation on what we can charge. That automatically eliminates a number of loans to small and growing enterprises which do not have either the capital assets or the usual discount with paper that we can take or in which we find greater risks than can be compensated for in the interest rate we are allowed." Did you find that in any of your banks?

Mr. HOPKINS. Yes; I have found that situation and I would say also this: That there is a margin of risk which seems to be dealable with by privately owned capital rather than by deposit money.

Mr. HENDERSON. There are obligations that run to protection of deposit capital which do not run to protection of risk capital.

Mr. HOPKINS. That is precisely what I was trying to say.

Mr. HENDERSON. Did you find many enterprises, as the Detroit investigators did, which were taking loans from outside finance agencies and private agencies, thereby giving employment, and recapturing also, in terms of the Chairman's question, enough to repay the loan and still go ahead?

Mr. HOPKINS. One difficulty with that type of borrowing was that the cost of it was generally such as to take away in very large part the profits of the operation.

Mr. HENDERSON. So there was a margin between what the bank is permitted to charge and what an outside agency presumably has to charge on account of its cost and risk. Therefore, if the small man has to pay a slightly higher rate than the bank's, he could still make a profit and give employment and go ahead.

Mr. HOPKINS. Of course, I consider it thoroughly questionable that the rates charged by some of the institutions are actually based on the realities of the risk. That has never been investigated or demonstrated.

Mr. HENDERSON. Well, as far as our biggest finance corporations outside the banking field are concerned, their earnings, their profits,

[1] Supra, p. 3972–3974.

their rate of loss, and the like over a period of time do not run far beyond what a bank can earn by using deposit capital and remaining within its restrictions on its loans.

So without discussing the propriety of those charges which are admittedly high, they are a tremendous burden on the small man. While the bank should not be subject to criticism because the loan, by reason of cost and risk is outside its perimeter, isn't it possible that under proper financing conditions a considerable amount of employment could be given if these small enterprises could go ahead with their ambitions?

Mr. HOPKINS. Yes; I am sure that is true.

Mr. HENDERSON. Then isn't it true also, regardless of whether they lost the money, whether they paid it all back, whether there were losses, that employment would result? There is no doubt in your mind that the small enterprises could go ahead if they had money?

Mr. HOPKINS. No doubt whatever.

Mr. HENDERSON. They would be taking risks, taking risks with other people's money, but they would be giving employment.

Mr. HOPKINS. Of course, a measure of risk taking has always been part and parcel of the competitive system.

Mr. HENDERSON. A small enterprise takes a larger risk than the well-financed one.

Mr. HOPKINS. Unquestionably; and it is as the outcome of undergoing that factor of risk, that expansion and added employment, added machinery orders, and all that kind of thing would come. I became fully convinced that the entire sector could be quite tremendously expanded. One could not do it—unquestionably one could not do it without a margin of loss, but then the competitive sector has never operated without a margin of loss. That has always been part and parcel of its operation.

Mr. HENDERSON. Discounting the enthusiasm which this trip around the United States engendered in you, a trip that I envied, do you think there are tremendous potentialities for reemployment if there were proper financing for small enterprise?

Mr. HOPKINS. I do; very definitely.

Mr. HENDERSON. Do you think it would run into hundreds of thousands?

Mr. HOPKINS. I think it would run into a very heavy percentage of the total unemployment problem—what percentage, I don't know, but a very considerable percentage. I shouldn't be afraid to guess that from a quarter to a third, at any rate, could be taken up by investment in the small business sector that would be very risk worthy investment.

Mr. HENDERSON. It undoubtedly would be risk worthy, but it would take place?

Mr. HOPKINS. Yes.

Mr. NEHEMKIS. I have no further questions, Mr. Chairman.

The CHAIRMAN. Mr. Voorhis, have you any questions of this witness?

Representative VOORHIS. No; I think not.

The CHAIRMAN. Mr. Hopkins, we are very much indebted to you.

(The witness, Mr. Hopkins, was excused.)

Mr. NEHEMKIS. Mr. Chairman, we have been talking the past day about developing our new internal frontiers as a possibility of aiding

small business. We are particularly fortunate in our next witness in having a case history of our actual physical frontier—the last physical frontier in this country, Alaska. Mr. Lebo has been kind enough to give of his time to come here at considerable inconvenience. It was necessary for him to leave Alaska by dog sled in order to make a train at Seattle last Monday to arrive here this afternoon, and I am very happy to call him.

The CHAIRMAN. While the next witness is coming to the stand, I may say that on May 12, while the consumer study was being presented, a question was directed to Mr. Robert Martino, Chief of Consumer Contacts and Labeling for the United States Bureau of Standards, with respect to the functions and activities of the Bureau.[1] It was the understanding that Mr. Martino would have a response to that question prepared. The response is now here and I present it for the record.

(The statement referred to was marked "Exhibit No. 639" and is included in the appendix to Hearings, Part VIII, on p. 3475.)

The CHAIRMAN. Proceed.

Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. LEBO. I do.

## TESTIMONY OF WILLIS R. LEBO, THE W. R. LEBO CO., SEATTLE, WASH.

Mr. NEHEMKIS. Will you state your name and address for the record, please, sir?

Mr. LEBO. My name is Willis R. Lebo. I live in Seattle part of the year, which is my residence, and in Ketchikan, Alaska, during the operating season, which is the summertime.

Mr. NEHEMKIS. You have some enterprises in Portland and in Seattle, and in Alaska, I believe, don't you?

Mr. LEBO. Yes.

Mr. NEHEMKIS. What kind of enterprises do you have in Portland, Mr. Lebo?

Mr. LEBO. In Portland I have a concern which formulates plant food or fertilizers and proprietary stock foods, those carrying proteins and vitamins and that sort of thing.

Mr. NEHEMKIS. And in Seattle?

Mr. LEBO. In Seattle I have a business which carries on the same functions as the Portland business, but we also do reclamation work; that is, we conserve wastes that originate from fires, wet ships, any goods that may be utilized by reconditioning and processing into stock feeds or fertilizers.

Mr. NEHEMKIS. How did you happen to interest yourself in establishing a business enterprise in Alaska, Mr. Lebo?

Mr. LEBO. All my life I have been interested in the processing and conservation of waste. I was sent to Alaska by a concern who had a plant to process fish waste, and the plant was ill conceived. It wasn't properly designed, and I put it in running shape for them and, as the years went by several concerns had me build them plants for

[1] See Hearings, Part VIII, p. 3425 et seq.

the reduction of herring, in the southern part of Alaska. In the meantime, I conducted my business in Seattle and Tacoma on the same lines, frequently building byproduct plants for other people.

Mr. NEHEMKIS. How did you happen to finally establish your business in Alaska?

Mr. LEBO. I became interested in the fish waste, the material that originates from the packing of salmon. It was the custom to dump it into the bay in a bag and, doing that, it contaminated the waters and it was a loss of valuable material, and it appealed to me from that angle.

Mr. NEHEMKIS. I understand, Mr. Lebo, that for every 50-pound case of salmon which is packed there are actually 19 pounds of waste, is that correct?

Mr. LEBO. Yes; that is the practical summary of the amount. There may be a little more wasted, but that is all that possibly could be—under the physical conditions of canneries—conserved.

Mr. NEHEMKIS. At or near Ketchikan, the seat of your operations, about how many fish canneries are there and in a rough way about how many tons of fish do they produce during the active season?

Mr. LEBO. I have a letter in my pocket, written by Mr. Wingard of the Fisheries Department, which I think your department has not seen. There are 11 concerns who packed a total of 850,719 cases in 1938, and that, he states, is approximately the average pack of the last 5 years. His letter starts with a reference to the policy of utilizing fish waste, which policy has been advocated by the Bureau of Fisheries for many years.

I believe steps should be taken to the utilization of all the fish waste in Alaska, especially at those points where there is a concentration of plants.

Mr. NEHEMKIS. If this fish waste is not promptly utilized, what is the result?

Mr. LEBO. He happens to state here:

The resultant product would be a complete saving over a presently complete waste and would mean production of additional wealth and employment of additional labor.

The CHAIRMAN. How is this waste utilized?

Mr. LEBO. The material is gathered daily. When salmon come in to be canned, or in spawning season, they no longer feed and their visceral tract is entirely free, and these fish come in and are in very good shape for canning and are butchered by mechanical means—high-speed machines. The head, tail, and the visceral part, the vital parts, the heart, liver, and the roe and those parts where the fatty tissues that contain vitamins, and the bone structure, phosphorous, the meat and blood, proteins, and those materials are strictly fresh and, if accumulated under clean conditions, when cooked, pressed and dried, have two resultant products, oil and meal, and in turn they have a good many byproducts.

The CHAIRMAN. What are some of those byproducts?

Mr. LEBO. The fish meal contains as a fertilizer nitrogen and phosphorous. It has a good commercial value, but its highest field is in the feeding of livestock in a supplementary way; in other words, grains, when supplemented with protein material, go further and are a better nutrition than the grain without those materials.

It is especially valuable in the growth of young animals, for instance baby chicks; fox—the Government feeds small fry that they propagate with this material; fish hatcheries utilize it. Cattle raisers utilize fish waste extensively; they have for years in the old country and recently here.

There are 150,000 tons of fish meal fed to livestock on the Pacific coast alone. The oil product has the usual value for soap makers, currying of hides, tempering of steel car springs. It is used in some process in rubber-tire making, in a small way.

Then in the field of nutrition, these fish oils, aquatic oils, contain vitamins A and D in quantities that are very desirable. In other words, fish oil made from the visceral parts, or from liver, is an adequate or better supplement than cod liver oil. You may know cod-liver oil as something that is fed infants, but carloads of it are imported to feed livestock. The sources of those have been recently curtailed because the Japanese have been shipping immense quantities of those oils to this coast, or the raw materials from which the oil was made.

More recently they have perfected their own equipment to turn this oil into medical values and are now distributing it in the United States in that form, so there is an immense potential field in the oils from the liver of cod, halibut, and from the salmon industry.

Mr. Nehemkis. It is a fact, is it not, Mr. Lebo, that the Bureau of Fisheries has recognized the importance of the utilization of this waste product?

Mr. Lebo. I have been acquainted with them for some 25 years and have intimately known several of the heads of fisheries and I might say that it was a special hobby; it was something that they were extremely interested in. To quote the acting fisheries head, whom I visited yesterday on another matter, he said that the utilization of the fish waste of Alaska was one of the most important things that he felt they should be interested in, and he referred me to his chief of the technical staff, who says that he has a department that has specialized and experimented with and done a great deal of work on this subject. I am quite familiar with their bulletins. That is, confined to laboratory development.

Mr. Nehemkis. Mr. Lebo, how did you obtain the capital to start your plant in Alaska?

Mr. Lebo. Well, the plant of which I am principal owner is known as the Salmon By Products Co. of Ketchikan. I decided to enter that field and forestry officials helped me locate a site in this large fishing district, and in one season I prepared docks and buildings and a water system out of funds that I had on hand.

Mr. Nehemkis. In other words, as the initial venture you used your own funds?

Mr. Lebo. Yes.

Mr. Nehemkis. Did you try to get any equity money or some partnership money?

Mr. Lebo. I made a survey of that field but it looked as though I would have to carry the burden.

Mr. Nehemkis. What were the obstacles that you encountered?

Mr. Lebo. My real obstacles were in the year after I laid this business out. I laid it out with the idea of going back to it and developing it the first season.

Mr. Nehemkis. Just so that we may fix the time——

Mr. Lebo. That was in 1934. In 1935, expecting to use the preparation that I had made, I raised $20,000, most of it money from my two concerns, from Portland and from Seattle, some of it credit from machinery manufacturers, and I moved into the Ketchikan area with this equipment in scows and with my own tugs, and when I got there I suddenly found that my site had been withdrawn. There had been a change in the Forestry Service and they withheld the use of the site. That was my first financial problem that I had to go to the banks with. I went to the banks.

Mr. Nehemkis. Were these the banks in Seattle or Ketchikan?

Mr. Lebo. In both places. As a matter of fact, in my necessity I flew down so I could cover all the banks the same week, and I want to interpose here something that was asked recently about what this rule is that the bankers have. It seems very simple to me, because in the years I have gone to banks on this subject, and a commercial bank's answer is that they do not make capital loans. That is their answer, one and all, and I have never heard any other answer. When they do make a capital loan it is when they break the rule, their self-made rule. So then each one stated that I had a nice enterprise but they could not make a capital loan.

In Seattle, after failing to get money for this purpose—and I must say that I wouldn't have needed this money except that I needed a new site; I had to buy land, and while I was buying it I wanted good property—I was fortunate in securing a good site. I secured one for probably one-third of its value because of another man's necessity, so I wired a retired Ketchikan banker, a very fine man who developed that country, and I explained my necessity, that I wanted $8,000 cash quick to buy a site to carry on the situation. He wired me that he would go 50–50 with me; he would put up half the money if I would put up the other half, not as a bank but personally. So that day I mortgaged my home and borrowed on my life insurance and wired him the money, and he matched it and closed the deal. We acquired a 35-acre site in a cove adjacent to Ketchikan.

Now my problem was one of getting this plant up in time because of this delay, because I had to build a new dock, new buildings, and a new water system for getting ready to run during the present season, because if I didn't run the burden of moving this immense amount of waste was upon me whether I utilized it or not. So I put on speed and built this plant, not as large a plant as the situation demanded but one that would be as nearly financed as I could finance it. I started operation the day after the season opened and operated each season thereafter.

Coincident with my operations the town suddenly found that for the first time in their existence boats could approach the town within 3 miles without wanting to go by. This waste had been under the town and it had been a sanitary menace that had been recognized by the Government, but they hadn't found the means of treating it so the citizens, whether they thought it was healthful or not, immediately passed an ordinance which prohibited thereafter the polluting of the waters of that city with the waste from salmon. That put the burden on me, that this waste must be taken care of or else—the "or else" being that they would bring competitors in and build other plants. So I had to enlarge my plant.

Each year I increased production or increased equipment $20,000 worth, and each year I almost made that amount of money from the production. Each year I went to banks and tried to interest a capital loan. A Seattle bank had no hesitancy, having financed goods in and out of the country that I bring, importing them, in loaning me money on warehouse receipts or on bills of lading, and they were rather liberal in their terms. They loaned me 80 percent of the value.

I finally found myself this summer, this preceding year, ready to operate with a temporary loan advanced by a buyer of enough to bring some $8,000 worth of supplies to the community, and my crew, who were signed up for a period and their wages were guaranteed, and a strike occurred, not in my plant but in the community in the canning industry. That plant runs but 7 weeks of the year. This industry is only 7 weeks long. With the first 3 weeks of it lost through striking, it threw the extraordinary burden of taking care of all this immense volume of waste in 4 weeks instead of 7 weeks.

I have found no way as yet to secure capital to go on with that business. The profits are demonstrated. The Alaska banks, their capital is very limited.

Mr. NEHEMKIS. What is your productive capacity each day? Have you got enough plant to do the job that you think you can do and should do?

Mr. LEBO. In this one community I can care for all of the waste that originates there with the plant I now have.

Mr. NEHEMKIS. What is your financial picture today? To whom do you actually owe money at this time?

Mr. LEBO. When I had to buy this site, which was a matter of $8,000 for the land and an additional ten or twelve thousand dollars to cover the loss of docks and buildings, it set me behind my original budget about $20,000. I have carried that along up to the last season, which is now, but have made the $20,000 in improvements out of profits each year.

Mr. NEHEMKIS. In other words, you haven't drawn any salary out of the Ketchikan property.

Mr. LEBO. No; I never have.

Mr. NEHEMKIS. You draw your salary out of the Seattle and Portland properties?

Mr. LEBO. I really don't draw salary out of either one of them. People call me once a year to build something and fees carry me personally and I don't draw out of those businesses. But in the situation, here is the problem that besets all small business people.

I have secured one loan, as I told you, on the land, and I paid it back and I secured loans from time to time on machinery which I paid back. Two years ago my banker called me one day and said, "There is a Ketchikan banker in this town who gave you a pretty good send-off. Why don't you see him? I believe he has money to loan."

Here was a case where they did make a capital investment. I called on the banker and he said, "How much money do you need?"

I said, "I want as much as I can get."

He said, "Our limit under our capital is $13,000, and you can have that."

So I returned to my office and sent the papers required and the money didn't come. Through an intermediary he explained to me that the bank situation was a little different when he got back, but the president of the bank would loan me the $13,000 on a demand note, which he did. However, one night this winter he called me on the phone and he said, "We want you to pay your note within 48 hours so I can take the money back with me to Ketchikan."

I said, "That's rather difficult, but we will do what we can if it is the last word."

The next morning, in going down the street, I met a man in Seattle who has a business in Alaska. He said, "You know, I got a call last night for a loan."

I said, "So did I. What are you going to do about it?"

"Well," he said, "it so happens" (we pay 8 percent up there) "that a large machinery house has asked me to accept a credit of $200,000 to distribute their products in Alaska, and it looks bad to have this 8-percent loan and I think I can phenagle a way to clean this loan up on the prospects of the other money I am going to get, which should relieve your situation."

The banker never came back to me. He apparently got on the boat and went north. I heard no more about it except to receive bills for interest, which I paid. The point is, though, that the bankers' necessity arose out of that strike, and that is the only source of so-called investment that I have, right there on the ground, limited to $13,000. If I have to pay that $13,000 this season there isn't any other place to get that capital investment.

Mr. NEHEMKIS. In other words, Mr. Lebo, you are confronted with this situation: You have a business enterprise that is recognized by governmental authorities as performing a useful, a necessary service. You can't get financial aid out of Seattle because the bankers tell you they can't make capital loans. You can't get aid from your local banks in Ketchikan because they haven't the capital to do the kind of lending that you need. Do you know of any place that you can get any aid?

Mr. LEBO. I have no source. I thought of the R. F. C. and it seems that if I want to build another plant like this one they might be of some help, but I have already spent my money so I can't pay for improvements of the past summer with this new money.

Mr. NEHEMKIS. If you could get $50,000 loan capital today, what could you do with it, actually?

Mr. LEBO. Well, Alaska represents a source of potential activity and manpower that is tremendous in my own scheme of affairs. I have a group of young college men who have worked their way through school. They are young engineers and we have been training them and we have sounded the possibilities of what we could do in the community we are in and what we would like to do. We naturally turn to conservation first. Forestry has advertised and wants some concern to manufacture cedar products from the local cedar that occurs in the forests. It isn't a large business; it is a small business of highly specialized white cedar, suitable for boat building and known as Alaska cedar. As a byproduct, the waste from this would furnish fuel for my fish plant. My fish plant now has a large and very good power plant. Our boys have designed a small cedar plant, not with the idea of doing it at this time, but if we were

in shape to do it, the waste from the cedar plant would furnish the fuel for our plant. It costs $5,000 for each 30 days to furnish fuel oil for our fish plant.

There is adequate material in this other source in having a deep-sea dock, having scows and a very good machine shop and fine power plant; a very limited investment of perhaps 12 or 14 thousand dollars would make a small 20,000 cut cedar plant yielding a very high grade cedar to be used for boats and so on. And it would also yield this byproduct of fuel, both for our electrical and for our steam. We had to build a 7-mile line to the plant, which we have amortized and paid for as we went along. And we can then provide our own electricity and our own steam power and fuel.

Now it happens that we are on a cove which is the only sheltered haven for the mosquito fleet there—the mosquito fleet is a matter of 1,000 halibut boats and 1,000 small seiners and that type of boat, which are run by fishermen, and they go out to the banks and work out there. There is no provision where their boats can be taken out and seasoned. There is provision for taking a boat out and repairing it and putting it immediately back in the water for another run, but a way where boats can be taken out and seasoned and the fisherman can do his own work, that is another project that requires a small amount.

On our beach there the shelter is a mile long and would take care of 1,000 boats. Many of those boats have to travel about eight or nine hundred miles to meet a similar condition, find what they want for their winter lay-up and winter rehabilitation, both machinery and cleaning. That is something they would like to go ahead with. The oil that is extracted from this fish is highly potent in vitamins A and D, but it can only be sold medicinally after being further cleaned and renovated. In other words, it has to be put so it will keep, so it won't break down, so it will stay sweet or lasting.

That requires a chlorination plant and facilities of that sort, and in addition employment of a biologist and some testing material, and so to establish the vitamin units the fisheries bureau in this town, or in this city, have already established those values, but they must be established on a particular oil and be certified and branded on a particular package that you sell. Their experiment test here would not apply to each parcel that is sold under these food laws, so there is another place of employment.

To me that is the one I would like most to go ahead with. And banks are very sympathetic to that. They realize that where I make a low grade oil that will yield $20,000 in revenue in 5 weeks' time, that as a vitamin oil it would displace $60,000 worth of imported cod liver oil. There is no question but we will bring these developments back somehow.

Mr. NEHEMKIS. Mr. Lebo, I believe you testified earlier that in the Ketchikan area there were 13 canneries?

Mr. LEBO. Yes.

Mr. NEHEMKIS. Are they all owned or controlled by American citizens, as far as you know?

Mr. LEBO. Yes. Several of them belong to these large food concerns. A number of them are privately owned. I think in every case they were private citizens.

Mr. NEHEMKIS. Well, now what do you think is the experience of some of these other individuals in the Ketchikan region? Are they having the same financial difficulties that you describe? I am confining my question, of course, to the small units, not any outposts of large corporations.

Mr. LEBO. The canning industry is quite different than the type of business I am engaged in. We have had to invent a sort of machinery that would have to handle this particular waste. It isn't built otherwise; it is for this particular application, so we have had to design our machinery and in the canners' case the large can companies leased them a machine and put it on their floor and serviced it, so the investment in that regard is not so large. Their investment is within largely the bankers' realm, because it is a commercial loan.

They can repay it in 90 days. The bank in Seattle would advance the money to pay for gear and so on, and take the product 90 days later with a highly standardized resale value.

Mr. NEHEMKIS. Well, do you think that there are real difficulties being experienced by other small operators in the Ketchikan region, or other parts of Alaska that you are familiar with?

Mr. LEBO. It is tremendously difficult for small industries to start there; almost an impossibility, unless they have their own money.

Mr. NEHEMKIS. Let me ask you this question, if I may, Mr. Lebo. You are carrying on a business enterprise in what I suppose is the last frontier of America. What real possibilities do you see there for new money being poured in? What could be done if money and credit were available and capital loans could be made?

Mr. LEBO. Well, Alaska is a paradox; it is carrying Seattle on its shoulders now because of the immense amount of gold mined and the high price paid for it, and it is holding Seattle up by the inflow of the material in and out, and that business seems fairly well capitalized, although the smaller mines have immense difficulty. You can only get capital by going to private sources who have to give their right eye up to large interests to get that little mine operating. The labor situation—the country is so little developed that thousands of men could be employed up there. It will be the future source of wood pulp. Water power hasn't been touched, and its fish have not been developed, except in salmon and halibut, and there are many varieties of fish. We sit here and let Japan can the crabs that they take off the shelf of our northern extremity. We are not in that business. The small business man can't get established in it. I guess we have one up there; he combed the country and Seattle and was given friendship money to get him started.

Mr. NEHEMKIS. Then you would say, I take it, that if Alaska can be developed and expanded it would have a direct effect upon the prosperity of that northwest region?

Mr. LEBO. Immediately; it is carrying Seattle right today.

The CHAIRMAN. Alaska is carrying Seattle today?

Mr. LEBO. Unquestionably.

Mr. NEHEMKIS. I have no further questions, Mr. Chairman.

The CHAIRMAN. Do you happen to know how much land in Alaska is still part of the public domain?

Mr. LEBO. I think one could say it was largely the public domain, almost in its entirety.

The CHAIRMAN. In other words, in Alaska only a very small proportion of the surface of the entire territory is in private ownership?

Mr. LEBO. Practically none of it is in private ownership. I might explain that; that the United States Government had the forests and they give you a permit, but few people have patent right ground. In my instance I have patents running direct from the Government, but it is all what is known as use and occupancy. If you do a certain amount of development and later on they have a method that a few people can buy in scrip and some other things are available to them, but there is no limit to the untaken land there.

The CHAIRMAN. How much of the area in Alaska is within the forests?

Mr. LEBO. I don't know.

The CHAIRMAN. Do you have any of these use and occupancy permits?

Mr. LEBO. I have had several in time; I had one that was canceled on me 4 years ago.

The CHAIRMAN. Are you using any in your business?

Mr. LEBO. Not now.

The CHAIRMAN. Do you know of any being used?

Mr. LEBO. Yes; I know many, many canneries.

The CHAIRMAN. In other businesses?

Mr. LEBO. Some sawmills.

The CHAIRMAN. The canneries then occupy the public domain merely under permit?

Mr. LEBO. From the forestry.

The CHAIRMAN. From the United States Forest Service, in order to maintain these private institutions?

Mr. LEBO. Yes.

The CHAIRMAN. For the canning of fish?

Mr. LEBO. Yes.

The CHAIRMAN. Have you any idea what proportion of the business of Alaska may be termed small business and what proportion is conducted by absentee capital?

Mr. LEBO. Absentee capital is the large mines.

The CHAIRMAN. The mining business in Alaska is almost exclusively the operation of foreign capital; that is to say, absentee capital?

Mr. LEBO. It is becoming that way, and the transportation to Alaska——

The CHAIRMAN. When you say it is becoming that way, what do you mean; how much? What proportion of the mining business is locally owned?

Mr. LEBO. Well, it is practically all foreign capital.

The CHAIRMAN. All what?

Mr. LEBO. It is largely foreign capital.

The CHAIRMAN. Largely absentee capital?

Mr. LEBO. Yes.

The CHAIRMAN. In other words, the mines of Alaska are operated by the large corporations?

Mr. LEBO. Yes.

The CHAIRMAN. Organized outside of Alaska for the development of that area?

Mr. Lebo. The great dredging operations are financed in New York and San Francisco and elsewhere, and they have taken over the small placer miner.

The Chairman. The question which was directed to you by counsel, that Alaska was practically the last frontier, prompted me to send for this chart which has been prepared in the Procurement Division of the Treasury Department and which shows Federal ownership of real estate in the various States as of June 30, 1937. This chart apparently does not deal with Alaska, but it does show that there still is at least some kind of a frontier.

Eighty-two and sixty-seven one hudredth percent of the entire area of the State of Nevada is in the ownership of the Federal Government. I assume that Alaska—the proportion in Alaska is even greater than that?

Mr. Lebo. I doubt if there is over 1 percent, or a half or part of 1 percent privately owned in Alaska.

The Chairman. Sixty-three and five one-hundredths percent of the total area of Arizona is owned by the Federal Government; 60.45 percent of Utah is owned by the Federal Government; 58.07 percent of Idaho; 46.29 percent of Oregon; 42.72 percent of Wyoming; 39.46 percent of California; 35.32 percent of New Mexico; 33.95 percent of Montana; 33.34 percent of Colorado; and Washington is the first State, two-thirds of which is in private ownership, or at least is not in the ownership of the Federal Government. The State of Washington owned by the Federal Government is 32.26 percent.

It occurred to me that this chart might be of interest not only to the witness but to the members of the committee. It shows the black diagram in each of these Western States as the amount of land, the amount of area in that State which is still owned by the Federal Government. So we still have a frontier, a physical frontier, a geographical frontier, but the ownership of this land and the development of this land in the West, the ownership and the right to develop the resources, has passed into the same sort of absentee ownership of which you speak, and the question of small business, of the development of free, independent enterprise which you outline for Alaska is the problem for the entire western third of this country, and it is a growing problem, so that the testimony which has been developed here today, Mr. Nehemkis, under your very skillful guidance points directly to the need of private development and also points directly to the question of growing importance in this country, the participation of government as an organization in the affairs of the people, and the participation of organized capital as organizations in the affairs of the people.

The question, I think, in the last analysis is one of whether we choose from now on to develop and maintain free, independent public enterprise, or to allow concentrated organization to dominate the lives of all.

The Chairman. I think I shall take advantage of my position and offer this chart as an exhibit to illustrate your testimony.

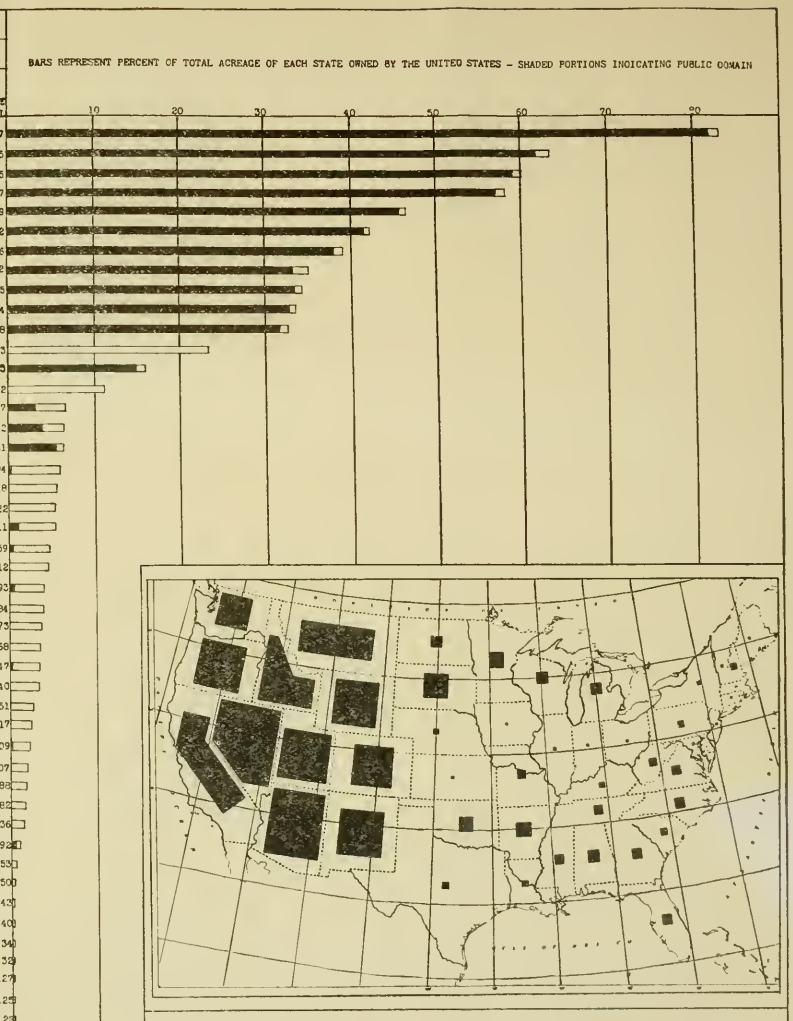
(The chart referred to was marked "Exhibit No. 640", and faces this page.)

Mr. Nehemkis. If you hadn't done that, Mr. Chairman, in view of my ignorance of the American frontier, I would have taken it upon myself to have done so.

TREASURY DEPARTMENT
Procurement Division

# FEDERAL OWNERSHIP OF REAL ESTATE IN THE VARIOUS STATES, JUNE 30, 1937

| STATE | ACREAGE | | | | | | % OF STATE TOTAL |
|---|---|---|---|---|---|---|---|
| | TOTAL OF STATE | | | OWNED BY THE UNITED STATES | | | |
| | PUBLIC DOMAIN | PRIVATE LAND | TOTAL | PUBLIC DOMAIN | ACQUIRED BY PURCHASE, DONATION, ETC. | TOTAL | |
| NEVADA | 58,035,000 | 12,250,000 | 70,285,000 | 58,035,000 | 71,000 | 58,106,000 | 82.67 |
| ARIZONA | 45,183,000 | 27,655,000 | 72,838,000 | 45,183,000 | 765,000 | 45,948,000 | 63.05 |
| UTAH | 31,642,000 | 20,956,000 | 52,598,000 | 31,642,000 | 152,000 | 31,794,000 | 60.45 |
| IDAHO | 30,780,000 | 22,567,000 | 53,347,000 | 30,780,000 | 196,000 | 30,976,000 | 58.07 |
| OREGON | 27,700,000 | 33,488,000 | 61,188,000 | 27,700,000 | 628,000 | 28,328,000 | 46.29 |
| WYOMING | 26,229,000 | 36,202,000 | 62,431,000 | 26,229,000 | 441,000 | 26,670,000 | 42.72 |
| CALIFORNIA | 38,898,000 | 60,719,000 | 99,617,000 | 38,898,000 | 420,000 | 39,318,000 | 39.46 |
| NEW MEXICO | 26,589,000 | 51,813,000 | 78,402,000 | 26,589,000 | 1,107,000 | 27,696,000 | 35.32 |
| MONTANA | 30,142,000 | 63,382,000 | 93,524,000 | 30,142,000 | 1,627,000 | 31,769,000 | 33.95 |
| COLORADO | 21,779,000 | 44,562,000 | 66,341,000 | 21,779,000 | 340,000 | 22,119,000 | 33.34 |
| WASHINGTON | 13,439,000 | 29,336,000 | 42,775,000 | 13,439,000 | 369,000 | 13,808,000 | 32.28 |
| DISTRICT COLUMBIA | | 44,000 | 44,000 | | 10,000 | 10,000 | 23.43 |
| SOUTH DAKOTA | 7,220,000 | 41,976,000 | 49,196,000 | 7,220,000 | 716,000 | 7,936,000 | 16.15 |
| NEW HAMPSHIRE | | 5,780,000 | 5,780,000 | | 652,000 | 652,000 | 11.22 |
| ARKANSAS | 1,122,000 | 32,494,000 | 33,616,000 | 1,122,000 | 1,188,000 | 2,310,000 | 6.87 |
| MINNESOTA | 2,042,000 | 49,707,000 | 51,749,000 | 2,042,000 | 1,348,000 | 3,390,000 | 6.55 |
| OKLAHOMA | 2,576,000 | 41,849,000 | 44,425,000 | 2,576,000 | 233,000 | 2,809,000 | 6.31 |
| ALABAMA | 44,000 | 32,775,000 | 32,819,000 | 44,000 | 1,912,000 | 1,956,000 | 5.94 |
| WEST VIRGINIA | | 15,374,000 | 15,374,000 | | 842,000 | 842,000 | 5.48 |
| VIRGINIA | | 25,768,000 | 25,768,000 | | 1,345,000 | 1,345,000 | 5.22 |
| WISCONSIN | 420,000 | 34,944,000 | 35,364,000 | 420,000 | 1,397,000 | 1,817,000 | 5.11 |
| MICHIGAN | 120,000 | 36,667,000 | 36,787,000 | 120,000 | 1,578,000 | 1,698,000 | 4.59 |
| NORTH CAROLINA | | 31,194,000 | 31,194,000 | | 1,290,000 | 1,290,000 | 4.12 |
| FLORIDA | 356,000 | 34,755,000 | 35,111,000 | 356,000 | 1,025,000 | 1,381,000 | 3.93 |
| NORTH DAKOTA | 1,186,000 | 43,731,000 | 44,917,000 | 1,186,000 | 579,000 | 1,765,000 | 3.84 |
| GEORGIA | | 37,584,000 | 37,584,000 | | 1,409,000 | 1,409,000 | 3.73 |
| TENNESSEE | | 26,680,000 | 26,680,000 | | 997,000 | 997,000 | 3.68 |
| MISSISSIPPI | 13,000 | 29,659,000 | 29,672,000 | 13,000 | 1,017,000 | 1,030,000 | 3.47 |
| SOUTH CAROLINA | | 19,517,000 | 19,517,000 | | 673,000 | 673,000 | 3.40 |
| VERMONT | | 5,839,000 | 5,839,000 | | 146,000 | 146,000 | 2.51 |
| MISSOURI | | 43,985,000 | 43,985,000 | | 976,000 | 976,000 | 2.17 |
| LOUISIANA | 13,000 | 29,049,000 | 29,062,000 | 13,000 | 593,000 | 606,000 | 2.09 |
| PENNSYLVANIA | | 28,692,000 | 28,692,000 | | 595,000 | 595,000 | 2.07 |
| KENTUCKY | | 25,716,000 | 25,716,000 | | 484,000 | 484,000 | 1.88 |
| MARYLAND | | 6,362,000 | 6,362,000 | | 121,000 | 121,000 | 1.82 |
| DELAWARE | | 1,257,000 | 1,257,000 | | 17,000 | 17,000 | 1.36 |
| NEBRASKA | 285,000 | 48,872,000 | 49,157,000 | 285,000 | 169,000 | 454,000 | .92 |
| NEW YORK | | 30,498,000 | 30,498,000 | | 161,000 | 161,000 | .53 |
| NEW JERSEY | | 4,809,000 | 4,809,000 | | 24,000 | 24,000 | .50 |
| TEXAS | | 167,935,000 | 167,935,000 | | 725,000 | 725,000 | .43 |
| MAINE | | 19,133,000 | 19,133,000 | | 80,000 | 80,000 | .40 |
| ILLINOIS | | 35,867,000 | 35,867,000 | | 124,000 | 124,000 | .34 |
| INDIANA | | 23,069,000 | 23,069,000 | | 85,000 | 85,000 | .32 |
| OHIO | | 26,074,000 | 26,074,000 | | 70,000 | 70,000 | .27 |
| MASSACHUSETTS | | 5,145,000 | 5,145,000 | | 13,000 | 13,000 | .25 |
| CONNECTICUT | | 3,085,000 | 3,085,000 | | 7,000 | 7,000 | .23 |
| KANSAS | 26,000 | 52,309,000 | 52,335,000 | 26,000 | 64,000 | 90,000 | .17 |
| RHODE ISLAND | | 683,000 | 683,000 | | 2,000 | 2,000 | .32 |
| IOWA | | 35,575,000 | 35,575,000 | | 36,000 | 36,000 | .10 |
| TOTAL | 365,839,000 | 1,537,382,000 | 1,903,221,000 | 365,839,000 | 28,819,000 | 394,658,000 | 20.74 |



The CHAIRMAN. Any other questions?

Mr. NEHEMKIS. No, sir.

Mr. LEBO. I would like to bring out this point that counsel here perhaps had in mind, that frontier has to do with population. Alaska in all those immense millions has but 70,000 population.

The CHAIRMAN. What is the area of Alaska?

Mr. LEBO. Well, I don't know but it is a tremendous thing.

Representative VOORHIS. Is it half as big as the continental United States?

Mr. LEBO. Oh, greater; yes.

Representative WILLIAMS. How much of Alaska is subject to being opened up for agriculture or stock raising purposes?

Mr. LEBO. There is some, but its future is along industrial lines, because here you have a great source of mineral wealth, fisheries, and timber.

Representative WILLIAMS. What is the principal mineral?

Mr. LEBO. Gold, tin, molybdenum, coal that has never been touched.

The CHAIRMAN. Have you any other witnesses, Mr. Nehemkis?

Mr. NEHEMKIS. Yes; we have another witness.

The CHAIRMAN. Thank you very much, Mr. Lebo.

Mr. NEHEMKIS. May I take this opportunity of thanking Mr. Lebo for having placed himself at such a great inconvenience to come here.

The CHAIRMAN. We certainly appreciate your contribution.

Mr. LEBO. Thank you.

(Mr. Lebo was excused from the stand.)

Mr. NEHEMKIS. Mr. Chairman, may I call as our next witness Mr. William Hurd Hillyer of New York City.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give in these proceedings shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. HILLYER. I do.

## TESTIMONY OF WILLIAM HURD HILLYER, ASSISTANT VICE PRESIDENT, JAMES TALCOTT, INC., NEW YORK CITY

Mr. NEHEMKIS. Mr. Chairman, may it please the committee, before examining the witness might I say this? Yesterday and today we have been examining with you into certain banking facilities which have grown up outside of the orthodox banking machinery which do aid and furnish capital and credit to small business enterprises. We have seen an example of what might be characterized, in the words of one witness, as supply house banking. We have seen how small businesses obtain their credit and capital aid from finance companies, and in some instances from what one witness characterized as the loan shark, but there is a great financial institution which serves of tremendous aid to the small business man, and that is the factoring institution. This witness will deal with that problem.

The CHAIRMAN. Very good.

Mr. NEHEMKIS. Will you state for the record, Mr. Hillyer, your full name and your address?

Mr. HILLYER. My name is William Hurd Hillyer. My address is 433 West Twenty-first Street, New York City.

Mr. NEHEMKIS. You are associated, are you not, Mr. Hillyer, with James Talcott, Inc., of New York?

Mr. HILLYER. Yes.

Mr. NEHEMKIS. In what capacity?

Mr. HILLYER. I am assistant vice president in charge of research.

Mr. NEHEMKIS. How long have you held that office, Mr. Hillyer?

Mr. HILLYER. I have been associated with Talcott about 7 years.

Mr. NEHEMKIS. Will you just indicate briefly and in general what your previous business experience has been?

Mr. HILLYER. Yes; I was first in newspaper work as one of the editors of the Atlanta Journal, my home town, and I was afterwards vice president of the Atlanta Trust Co., in Atlanta.

Mr. NEHEMKIS. How long has the firm of James Talcott, Inc., been established?

Mr. HILLYER. Since 1854, sir.

Mr. NEHEMKIS. I take it that James Talcott, Inc., is the largest factoring institution in this country.

Mr. HILLYER. No, sir; it is the largest independent factoring house not affiliated with any other group.

Mr. NEHEMKIS. The company's business consists solely of factoring, does it not?

Mr. HILLYER. Yes, sir.

Mr. NEHEMKIS. Now, I am going to ask you, if you will, Mr. Hillyer, to give the committee a description of the business of factoring.

The CHAIRMAN. May I interrupt the witness before he answers just to make note in the record that Congressman Schwert of New York, who is an author of one of numerous bills dealing with this problem of loans to the small businesses, is sitting with the committee this afternoon and we are very happy to have you with us, Congressman.

Mr. NEHEMKIS. Will you proceed, Mr. Hillyer?

### FUNCTION OF THE FACTOR IN SUPPLYING CREDIT TO SMALL BUSINESS

Mr. HILLYER. The business of factoring is conducted chiefly by about 25 long established houses in New York City and two or three other large centers. It offers to the independent manufacturer or merchant a thoroughly practicable method by which he can reinforce his working funds without creation of debt, division of control, or expansion of capital structure.

The volume of business handled by the factors of the United States amounts roughly to between seven hundred millions and eight hundred millions of dollars a year, according to competent estimates. Yet it is a business that remains comparatively unknown to the general public. One reason for this is that the factor does not come into direct contact with the general public because his dealings are by their very nature confined to business firms, and I may interpose a little personal experience there which will illustrate that even in quarters usually well informed the factor is still not so well known.

Just before undertaking to write a book dealing largely with this subject, published recently by Scribner's, called James Talcott, Merchant, I decided I would read up on my life work, and so I went to one of the largest of our public libraries and asked them for all the books that they had on the subject of factors and factoring. The young man said, "You want the mathematical department." I said, "No," and I tried not to laugh. "I want something

about a business that is akin"—and then I had an inspiration: "It is akin to the dry-goods commission merchant."

"Ah, yes. Oh, that kind of thing." So he went into a huddle with one of his associates and they emerged with a nice card and they said, "Here we have it," and he gave me a list of the publications of our own firm, all of which I had written. That is all he had on the subject. Well, I was very much flattered, but not very much helped.

Factoring is a very old business, with a history and traditions which go back for several hundred years, both in this country and in England. Blackwell Hall in London was dedicated to the woolen cloth industry in the year 1397, a great trade grew up in Blackwell Hall and lasted for centuries. It was here that textile factoring had its origin, and for about 300 years the Blackwell Hall factor was one of the most important figures in English industrial life.

The Blackwell Hall factor performed much the same functions as the nineteenth century dry-goods commission merchant in the United States. Here is what they both did.

First, they received, stored, and sold the merchandise consigned to them by the mills.

Second, they made advances on the security of such merchandise.

Third, when the merchandise was sold on terms of from 1 to 6 months, and sometimes longer, they made cash advances against the obligation of the buyer.

Fourth, they advised the mill of the buyer's financial responsibility, and vice versa, and they warranted such responsibility for a cash consideration.

The reason why I am going into the subject so fundamentally is to show that the commercial factor is basically a merchant, performing certain recognized functions for manufacturers and other merchants. He has been largely responsible during the past four centuries for the upbuilding of the textile industry, which has always been mainly in the hands of relatively small, independent producers.

The commercial factor of today was evolved from the nineteenth century commission merchant. He lays less emphasis on the actual selling and more on financial functions. His principal business today is the purchasing of open accounts, usually without recourse, that is to say, he assumes the credit risk. He does this for a limited number of concerns, hereinafter called clients, which he has investigated thoroughly and with which his relations are extremely close. He provides each of these concerns with a revolving fund, which is a permanent addition to its liquid capital. He does this by purchasing their open accounts as fast as created. In some cases he makes advances on merchandise, though this is a function that is falling into disuse.

He is no longer limited to the textile industry. Within the past 5 or 6 years his services have been extended to such diverse fields as fuels, furs, shoes, paper, rubber goods, glassware, metal products, lumber, furniture, and many others.

The factor's position in the present economic picture may be thus outlined: First, he serves relatively small and independent concerns only, the range being, as a rule, from $25,000 to $500,000 capital, and from $150,000 to $3,000,000 annual sales.

Second, the greater part of his working funds he obtains from the banks on his own promissory paper. This type of paper is much sought after by the banks, because it is extremely liquid and provides a maximum of security.

Third, in this way he puts a large amount of bank money to work, estimated at more than $200,000,000 at the present time, without the banks being obliged to assume the risk and the expense and the responsibility of handling an enormous number of unrelated and widely scattered transactions.

Fourth, he stabilizes credit conditions in the industry that he serves, not merely by assuming credit risk, but by enforcing higher ethical standards between debtor and creditor.

Fifth, he is a sort of silent partner in the enterprises that he factors. His close supervision of credits and his constantly available advice in merchandising and styling, as well as in financial matters, are such as a partner would furnish rather than a money lender.

Sixth, the type of capital that he provides is in the nature of a permanent addition to his client's working funds. It does not have to be liquidated or amortized; consequently it does not hamper the client's growth or curtail his future operations.

Seventh, the cost of his services, including interest on his money, tends to be measurably less than what the factored concern would otherwise spend, even if it were able to perform the services itself and to find a lender or partner to furnish the additional funds.

A distinction should be drawn between the old line factor and the so-called finance company. The factor's chief business, as we have seen, is the purchase of short time accounts receivable from regular clients, usually without recourse on the seller, and the making of conservative advances to such clients on seasonal accumulations of merchandise. The finance company, on the other hand, is in the business of discounting installment paper, secured by automobiles, radios, and the like, with average maturity running to a year or more in the majority of cases. Its function is radically different from that of a factor, though there is a surface resemblance.

Finance companies, unlike factors, are strictly modern phenomena. They have had an enormous growth in recent years, due to the rise of the automobile and other installment sold articles. They are universally known to the American buying public. The fact, however, that the two largest finance companies, Commercial Credit and Commercial Investment Trust, have invested heavily in factor subsidiaries, is not so generally known.

Commercial Credit owns the Textile Banking Co., a factoring concern, and Edmund Wright Ginsburg Corporation, factors. Commercial Investment Trust, through Commercial Factors, its factoring subsidiary, owns the old established houses of Frederick Vietor & Achelis, Peirerls Buhler & Co., and Schefer, Schramm & Vogel, together with L. Ernstein & Bro., Inc. It also owns Meinhard, Greeff & Co. and William Iselin & Co., Inc., the last name being one of the oldest and largest firms in the business.

This entry of the great finance corporations into the factoring field has taken place within the last 10 years. It may be regarded as a tribute to the stability and economic soundness of the factor's calling. In all cases, factoring subsidiaries are operated as wholly

separate entities, quite apart from the regular activities of the finance companies themselves.

There is also a large and steadily growing borderline zone, sometimes called non-notification factoring, which has come into being as the result of the extension of accounts receivable purchasing beyond its traditional domain of textiles.

In other fields the standard procedure, well recognized in the textile industries, of stamping the invoice with a notice to the effect that it is owned by and payable only to the factor, is not always practicable. Such notice, too, is not so necessary when the account is purchased with recourse, that is without credit warranty.

Machinery has therefore been devised within comparatively recent years by means of surety bonds, and so forth, for waving notification in certain cases with recourse on the seller, permitting the seller to do his own collecting.

The CHAIRMAN. Have you passed from the discussion of the combinations and mergers of factoring concerns?

Mr. HILLYER. Yes.

The CHAIRMAN. How many of these old independent factoring concerns have been merged?

Mr. HILLYER. Only those that I have mentioned. The rest are still independent.

The CHAIRMAN. Can you give us any idea of how many independent factors there are in the United States?

Mr. HILLYER. Among the old established houses, about 15.

The CHAIRMAN. And how many were combined, according to the testimony that you have just given us?

Mr. HILLYER. About half a dozen, I think.

The CHAIRMAN. So that there are still about nine independent factors?

Mr. HILLYER. There are still about 15, sir. There were between 20 and 25.

The CHAIRMAN. That is what I wanted to get.

Mr. HILLYER. And that does not include at least half a dozen of the perfectly well recognized and substantial houses that are smaller and are not among the old established houses, well established but not old established.

The CHAIRMAN. What would be your approximation of the total assets of all these factors? Are you going to come to that?

Mr. HILLYER. I am going to give you that. I have it right here. I would say about $50,000,000 invested capital. That does not mean total assets; that simply means invested capital, because some of their assets are borrowed currently from their banks. There would be something like $150,000,000 of total assets, but of that, $50,000,000 represents their own capital.

The CHAIRMAN. Do you consider this business, with this invested capital and these assets, as a really important element in the question of financing of small industry, or any industry?

Mr. HILLYER. Yes, sir.

The CHAIRMAN. It is a really substantial element, is it?

Mr. HILLYER. Yes, sir.

The CHAIRMAN. It is growing or decreasing?

Mr. HILLYER. Growing, sir.

Representative WILLIAMS. Right in that connection, while you are on that, where are these companies located?

Mr. HILLYER. Most of them, due to their textile background, are still located in New York City. However, the company with which I am connected has recently established branches in Boston, Chicago, Los Angeles, and also in London, and there are one or two concerns in Baltimore and Chicago that have not been quite so long established.

In line with Chairman O'Mahoney's question I may add that between 1928 and 1933 the total annual sales of the leading factors of the United States rose from $340,000,000 to $542,000,000, and there was a considerable increase since then. However, within the past year the increase has not taken place on account of general conditions. But up to about a year and a half ago there was a rather rapid increase in the volume of business done by the factors of the United States, so that the figure which I first gave, of $700,000,000, may be compared with the figure of $340,000,000 in 1928. In other words, answering the question more specifically, the business of the factors in the United States has about doubled in 10 years.

This type of business, as I was saying, is also steadily growing, that is, nonnotification factors, and is practiced largely and legitimately by the major finance companies, and to a lesser extent by the old line factors themselves, and by companies like the Seaboard Commercial, which are extending their activities from installment finance into factoring. It is manifest, however, that this species of operation may lend itself to abuses along the fringes of the accounts purchasing field. A host of irresponsible money lenders calling themselves factors merely to cloak their usurious practices have tended of late to bring that time honored title into disrepute. With these, however, I do not mean to include those legitimate concerns which, though relatively small, are rendering a real service and are endeavoring to maintain certain laudable and ethical standards.

The factors of the United States have an enviable record for taking care of their clients during times of panic and financial stress. A factor who, at such times, would call on his clients to liquidate their accounts would be held to have fallen short in the very first principles of his business, which are to keep his clients in funds and to cushion his clients against the shocks of adversity. During the bank moratorium of 1933, as a recent and notable instance, James Talcott and the other old line factors in New York City remained open as usual, making the customary cash advances to their clients. James Talcott and, I believe, other similar firms did the same thing in 1893 and 1907. I think it is safe to say that there has never been a regular business day during the past 75 years which has witnessed an interruption in the steady, normal flow of factors' funds in the United States.

Our own business, that of James Talcott, Inc., as an example, was founded by the late James Talcott in 1854. It was conducted as a partnership until shortly before his death in 1916. The capital at the close of that year was $2,250,000; it is now $4,700,000. During the 22 years of its corporate existence, James Talcott, Inc., has handled a business volume of $689,000,000 and shown gross earnings of $18,500,000. These figures are "round them outs."

Out of this we paid out in taxes, expenses, and credit losses absorbed for our clients, $12,300,000, leaving us a total net income of

$6.200,000 for the 22 years, a trifle less than 1 percent per annum on our volume of business.

From this net income, however, we wrote off $2,600,000 to cover losses which we incurred as a result of inventory loans and other efforts on our part to keep the mills of our clients going in troublous times, leaving approximately $3,600,000 as the total net return on our investment.

It will be seen that we factors, judging by the record of one of the largest and most successful firms in the field, are quite happy if, through a long term of years, we can get so much as one-half of 1 percent on the total turn over. Few if any businesses in the commercial field operate on so consistently low a margin of profit as does factoring, yet it is a good business if conducted by experienced management with ample capital and proper merchandising background. On the other hand one can well imagine how disastrous the results if attempted by management not so thoroughly equipped and without the necessary ripe and specialized organization.

In a business conducted on so extremely narrow a margin the burden of taxes is proportionately heavy. This burden is increasing to a point where it is hampering the operations of the factoring industry at the very time when our clients need us most. In 1937 taxes absorbed nearly 50 percent of our company's net income. It seems an ironic injustice that we factors, the only major group in the United States wholly devoted to helping small and independent business, should be perhaps of all groups the most heavily taxed in proportion to net profits.

I would like to quote, briefly, from an article that I wrote for Nation's Business in a recent number, giving a specific example and tracing the operations of a factor through a specific case.

A manufacturer doing a business of $250,000 a year has $50,000 tied up in book accounts. He could handle a volume of $400,000 if he had the necessary working capital. The additional requirement is about $30,000. Three methods of raising money other than factoring are open to him. First, short time borrowing. This is the most obvious, and if the business is strictly seasonal so that the loan can be paid off at some time in the course of each year, it may be perfectly feasible.

In this particular case, however, the volume is fairly steady throughout the year. What is needed is a permanent increase in working capital. Or, second, he might take in a money partner. This would involve a division of profits and a loss or division of management control. Moreover the new partners would certainly insist on salaries for themselves, making the cost of such capital practically prohibitive in a concern of this size.

Third, the flotation of a security issue. This method is impractical for the small manufacturer under present conditions. Even if so small an issue could be floated, the legal and other costs of a public offering would again be prohibitive. Private sale of securities to one or more individuals would merely be the equivalent of taking on new partners with the same disadvantages, but there are serious handicaps under which the manufacturer labors in this instance other than a shortage of working capital. He cannot prudently sell to all of the solvent concerns who might wish to buy his goods. For example, a large buyer might need a credit line of, say, $10,000, but the

manufacturer cannot afford to extend such a line because his working capital is only $50,000. Even concerns now solvent sometimes fail, and he cannot risk one-fifth of his working capital on one customer. In fact, the whole problem of credits and possible credit losses is a serious draw-back to a business of this size.

Factoring, then, is the remaining possibility. The factor approaches the situation first of all from the angle of eliminating credit risk and thus stabilizing the business. This he accomplishes after full investigation of the outright purchase of all the manufacturer's accounts receivable at their maturity without recourse to the manufacturer; that is to say, the factor assumes all responsibilities of credits. In plain language, when customers fail, and some always do, the factor shoulders the loss.

The CHAIRMAN. Well, is that a strictly accurate statement? When the factor purchases the accounts receivable of a particular manufacturer, does he not in making the purchase make an allowance for the expected losses suffered through other manufacturers whose accounts he has likewise purchased?

Mr. HILLYER. Only to the extent that he charges for assuming the full risk, but he does assume the full risk.

The CHAIRMAN. Does that not amount to the sale by the manufacturer at a discount of his receivables?

Mr. HILLYER. Oh, certainly; he has to pay for the assumption of the risk.

The CHAIRMAN. What is the percentage of discount?

Mr. HILLYER. We try to get 2 percent, but we are glad if we get 1.

The CHAIRMAN. You made a statement a little while ago that you operate on a profit of about 1 or 1½ percent on the total turn-over.

Mr. HILLYER. Right.

The CHAIRMAN. But you discount these accounts receivable of your clients at as low a rate as 1 or 2 percent?

Mr. HILLYER. Yes; but that, you see, is in terms of say 90 days, and they would all be glad to give 2 percent off for cash.

Represenstative WILLIAMS. That would mean 4 or 8 percent per annum.

Mr. HILLYER. Well, it is hard to figure it in terms of money return because the factor is obliged to keep his books and all his accounts in too well-nigh water tight compartments. We charge for the use of the money, 6 percent per annum, no more, no less. We then charge for the service, including the assumption of credit risk from 1 to 2 percent on the face of the invoice as a service, but the money is figured on the actual time that it is used and the actual amount used at the rate of 6 percent per annum.

The CHAIRMAN. But you turn your capital over at least three times a year, do you not?

Mr. HILLYER. Yes.

The factor now owns all his clients accounts and agrees to pay for them when and as they mature at their net face value, less a small percentage as his compensation, whether any of them prove insolvent or not. Some clients go no further than this, being content to have the factor warrant the solvency of their customers, but this manufacturer needs ready cash, so the factor advances payment on the accounts up to, say, 90 percent of their face value and hands the manufacturer a check immediately for $45,000, less a few hundred

dollars factorage. The remaining 10 percent is remitted when the accounts mature or sometimes more than 10 percent in some trades, which is to cover merchandise disputes which might arise and which have nothing to do with credit risks.

The $45,000 now becomes practically a permanent revolving fund, expanding with the needs of the business. As fast as fresh sales are made, they are assigned to the factor, who promptly makes the requested cash advances. Interest is charged and allowed pro and con at the rate of 6 percent a year. In other words, the manufacturer pays 6 percent interest on the money he draws for the time he uses it. This has nothing to do with the factorage. The factor investigates new customers and indicates the amount of credit he is willing to approve. Occasionally the manufacturer submits an account that the factor is unwilling to purchase except at the manufacturer's own risk. If the latter in such cases feels safe in going ahead and the amount is not too large, the factor will take it and advance upon it with recourse on the manufacturer. In such cases a part of the factorage is rebated.

The net result of all this is that the manufacturer obtains the required $30,000 for expansion of his business, plus $15,000 to spare. He does not owe this money to anybody. He has not increased his capital stock nor jeopardized the control of his business. Furthermore, he is protected against all loss due to failure of customers. He can, therefore, without hesitation take on additional business up to his $400,000 capacity, as it is axiomatic the profit ratio tends to increase with larger sales volume; his net profits should be at least doubled. Out of these increased profits he is able to take care of plant additions for further expansion.

This service does not usually cost him more than 6 percent interest on the factor's advances, because the manufacturer cannot well maintain an adequate credit department and absorb credit losses within the amount of the factor. If at the peak of a heavy season the manufacturer requires further assistance, the factor will advance temporarily a reasonable amount on this inventory or on goods sold, but not delivered. On such advances the factor charges interest at 6 percent per annum. With slight changes of detail, this outline applies equally well to the case of a merchant provided his customers are of a character that the factor's credit department can check.

This simple and economic machinery for helping the growth of small or moderate-sized concerns cannot fail to play an important part in the type of industrial development which is typically American. It is during this present period when the moderate-sized business is by reason of steady growth habitually overtopping its working capital that the modern factor steps in and not merely assists that growth with ready cash, but stabilizes the entire structure by eliminating credit risk.

It is not to be wondered at that the factor's business has itself shown such remarkable increase in the past few years. He is performing a timely, useful and thoroughly logical function.

Mr. Nehemkis. Mr. Hillyer, I should like to ask you a few questions, if I may. How much of the business of James Talcott, Inc., consists of making advances against inventory or against goods sold, but not delivered?

Mr. Hillyer. At the present time we are only carrying less than $1,000,000 of such paper.

Mr. Nehemkis. Do you as a person who has spent a great many years in the factoring business, find any objections to that kind of transaction?

Mr. Hillyer. We find it increasingly difficult because of the fluctuating markets in recent years, which have caused us to curtail the type of accommodation just as far as possible.

Mr. Nehemkis. When you make that kind of an advance, what safeguards are provided?

Mr. Hillyer. We, of course, have certain legal assignments of title and we put in a custodian of the goods still on the premises of the client.

Mr. Nehemkis. The cost of course is billed to the borrower, is that correct?

Mr. Hillyer. Yes; but there is no profit in it to us, usually a loss.

Mr. Nehemkis. Is it not true that an unscrupulous factor could utilize this practice to cloak excessive charges?

Mr. Hillyer. Oh, unquestionably; that is an unscrupulous person calling himself a factor.

Mr. Nehemkis. Would you care to indicate what the charges and interest rates are as employed by James Talcott, Inc.?

Mr. Hillyer. Well, I have already stated in answer to a question from your chairman that the charges are about the same, practically the same, among all the old line factors, namely 6 percent per annum interest on the money, and from 2 percent down as a factorage for the service rendered—usually down.

Mr. Nehemkis. What kind of contract is entered into, Mr. Hillyer, between a producer and a factor?

Mr. Hillyer. Very simple. It was formerly much more elaborate. Now it consists of an exchange of letters under which the producer agrees to sell and the factor agrees to buy, all of the accounts receivable of the business as fast as they are created, and he also agrees to submit all orders and applications for credit to his factor before selling or consummating a sale.

The Chairman. Who is the salesman under this system?

Mr. Hillyer. The producer now.

The Chairman. Formerly the factor was?

Mr. Hillyer. Formerly the factor, but the factor still performs a very definite function in bringing together the selling agents who are now in the textile field, at any rate, specialized in the various angles of the textile business, and the producer, so that a producer wishing to put a certain number of lines out, goes to his factor and says, "Who is a good selling agent for this line, and who is a good selling agent for that line?" And the factor brings him in touch with the proper selling agents, so that he will get the best results; being already thoroughly conversant with his field, the factor is able to perform that service and does largely perform, competently perform, both for the producer and for the selling agent.

Mr. Nehemkis. Have you any more questions, sir?

The Chairman. No.

Mr. Nehemkis. Doesn't this type of contract which you have described give the factor some measure of control over the producer?

Mr. HILLYER. Only to the extent of not warranting accounts that the factor does not check. The producer can go ahead and sell on his own responsibility and assume the risk, but in that case he can't expect the factor to assume the risk because he doesn't know anything about it.

The CHAIRMAN. Well, wouldn't an undisclosed risk of that kind endanger the contract with the factor?

Mr. HILLYER. No. It wouldn't endanger it; the contract is not so worded that anything of that sort would obtain.

The CHAIRMAN. I didn't mean it in that way; I meant the producer might incur losses in such a way to endanger the factor.

Mr. HILLYER. That is true, he might; that is very true, and so it is good factoring practice to see to it that your clients do not run fast and loose on their own responsibility.

The CHAIRMAN. In other words, you do exercise a certain amount of control?

Mr. HILLYER. For their own sake. We do that.

The CHAIRMAN. Well, of course, that is always the explanation of the power that exerts control.

Mr. HILLYER. It is really for our sake, Chairman, to keep from losing our money.

Mr. NEHEMKIS. Well, Mr. Hillyer, let us assume that the factor doesn't exercise any actual control, isn't the relationship between the factor and the producer so intimate that a mere suggestion from the factor is apt to carry great and considerable weight?

Mr. HILLYER. Quite so, sir. I was coming to that. That is really the relationship. It is a very close advisory relationship, and as soon as that relationship is impaired the contract tends toward a termination, and by the way it is terminable at 60 days' notice on the part of either side.

The CHAIRMAN. It probably wouldn't be proper to say that the factor is a partner with an insured profit?

Mr. HILLYER. I would that he were, sir.

Mr. NEHEMKIS. Mr. Hillyer, is it not true that if a producer lacks financial strength and cannot afford to discount receivables with recourse or to carry them himself, in that case the entire list of customers to whom sales can be made will be determined by the factor?

Mr. HILLYER. Oh, yes. Naturally it would have to be, because we could only look to his customers, but we don't like to take on a concern that has not some measure of stability itself, no matter how good its customers.

Mr. NEHEMKIS. That device may lend itself to some abuse, may it not?

Mr. HILLYER. No, sir; not that particular device; I can't see any abuses that could be subject to.

Mr. NEHEMKIS. Is there any State or Federal branch of the Government which exercises regulation or control over the factor industry?

Mr. HILLYER. No, sir; we are the one group that has never gone to the Government or to anybody else for any help, and nobody has gone to the Government for help, that I know of, against us.

Mr. NEHEMKIS. Is there any machinery within your own industry which imposes——

Mr. HILLYER (interposing). We have no machinery, but being an old-established group of people we have certain very high ethical standards which we endeavor to maintain and which we do maintain.

Mr. NEHEMKIS. I have no further questions, sir.

Mr. O'CONNELL. I am not entirely clear on how having a customer or a client, a producer who would sell his merchandise that you don't want, could operate to the disadvantage of the factor. Could you explain that to me?

Mr. HILLYER. Only to the extent suggested by Chairman O'Mahoney, that if he made a habit of that he would wreck his own business and in that way cost us money.

Mr. O'CONNELL. You mean cost you a customer. I don't understand how.

Mr. HILLYER. It costs us money whenever one of our clients fails, even if all of his accounts are good, even if we don't lose on his invoices it costs us money to wind up his account, and we don't like to have any of them fail. It is a bad thing, and it doesn't do us any good in the trade.

Mr. O'CONNELL. But that is the sort of loss it is, the winding up of the account, rather than actual loss of the business that you do.

Mr. HILLYER. That is it. It is an indirect loss.

Mr. O'CONNELL. One other thing which isn't quite clear. In the transaction that you supposed, where you would buy $50,000 of accounts receivable of a client, does the 6-percent interest appear in that transaction as well as the 1- or 2-percent discount from the face amount of the bills?

Mr. HILLYER. Yes; because there are two separate and distinct things. One is the service and the other is the money. Some people take the service and don't want the money. If they want the money they pay interest on it.

Mr. O'CONNELL. Well, the transaction is not an outright purchase of the accounts receivable; it partakes something of the character of a loan at the same time, doesn't it?

Mr. HILLYER. No; that might be a legal or legalistic view of it, but what we really do is buy the accounts outright and then if they want the money before the maturity of the account, or any part of it, we charge them interest for the advance payment of the obligation.

Mr. O'CONNELL. I was confused by your calling it an outright purchase, because it isn't exactly an outright purchase of accounts receivable because the purchase price, so to speak, in the final analysis, depends upon the time when the accounts receivable are paid.

Mr. HILLYER. No, sir.

Mr. O'CONNELL. Or the credit advanced by the factor.

Mr. HILLYER. It depends on the risk and trouble that is incurred, the risk and work and therefore the expense. We might charge a heavier discount or factorage, as we call it, for a certain account (a) running only 10 days, than we would for another account (b) running 30 days, because account (a) might involve more risk and more trouble than account (b).

But the interest on our own advances whenever the money is desired is the same, namely 6 percent per annum on the amount of money advanced for the time advanced.

Mr. O'Connell. Taking the case that you supposed, let us assume that the producer wanted the money on the day that he sold the accounts receivable to you. The money that you paid him for the accounts receivable would bear interest at 6 percent for how long—the term of credit that he extended to his customer, or would it run until you received payment?

Mr. Hillyer. Until the term of credit nominated on the invoice.

Mr. O'Connell. So if you were extending 90 days you would collect interest at 6 percent for that period regardless of when you collected the account.

Mr. Hillyer. That is the practice; yes.

The Chairman. Are there any other questions? Congressman Voorhis, would you care to ask a question?

Representative Voorhis. I don't believe so, Mr. Chairman.

The Chairman. Congressman Schwert?

Representative Schwert. I don't believe so.

The Chairman. We are very much indebted to you, Mr. Hillyer. Have you any other witnesses?

Mr. Nehemkis. No, sir. This concludes our presentation of the small-business phase of the entire study.

The Chairman. And may I say, on behalf of the committee, that we are very much indebted to you, Mr. Nehemkis, and to you, Mr. Kelley, for the very efficient and capable manner in which your presentation has been made.

Mr. Nehemkis. Thank you, sir.

The Chairman. The committee will stand in adjournment subject to the call of the Chair.

(Whereupon, at 5 p. m., an adjournment was taken, subject to the call of the chairman.)

# APPENDIX

## Exhibit No. 541

[Chart based on following statistical data appears in text on p. 3499]

*Gross national product and capital formation, and consumers' outlay for durable goods and other goods and services, 1919–1937*

[In millions of dollars]

| Year | Gross national product | Gross capital formation | Consumers' outlay | | | Year | Gross national product | Gross capital formation | Consumers' outlay | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Durable goods | All other | Total | | | | Durable goods | All other | Total |
| 1919 | 68,750 | 19,341 | 5,987 | 43,422 | 49,409 | 1929 | 93,640 | 20,298 | 9,913 | 63,429 | 73,342 |
| 1920 | 82,836 | 22,100 | 6,921 | 53,815 | 60,736 | 1930 | 82,723 | 13,662 | 7,550 | 61,511 | 69,061 |
| 1921 | 66,148 | 11,488 | 5,570 | 49,090 | 54,660 | 1931 | 64,751 | 8,464 | 5,748 | 50,540 | 56,288 |
| 1922 | 67,186 | 13,282 | 6,181 | 47,723 | 53,904 | 1932 | 47,202 | 3,147 | 3,806 | 40,249 | 44,055 |
| 1923 | 78,214 | 18,199 | 7,943 | 52,072 | 60,015 | 1933 | 46,538 | 4,268 | 3,882 | 38,388 | 42,270 |
| 1924 | 78,791 | 15,245 | 7,900 | 55,646 | 63,546 | 1934 | 55,827 | 6,123 | 4,686 | 45,018 | 49,704 |
| 1925 | 83,413 | 19,211 | 9,056 | 55,146 | 64,202 | 1935 | 62,262 | 10,027 | 5,918 | 46,317 | 52,235 |
| 1926 | 88,780 | 19,037 | 9,445 | 60,298 | 69,743 | 1936 | 73,499 | 14,594 | 7,343 | 51,563 | 58,906 |
| 1927 | 86,778 | 18,208 | 8,890 | 59,680 | 68,570 | 1937 | 81,343 | 18,846 | 7,956 | 54,541 | 62,497 |
| 1928 | 90,053 | 17,824 | 9,174 | 63,055 | 72,229 | | | | | | |

Source: Kuznets, *National Income and Capital Formation, 1919–1935*, except that data for 1934–1937 are preliminary and are reproduced with the special permission of Dr. Kuznets and the National Bureau of Economic Research.

## Exhibit No. 542

[Chart based on following statistical data appears in text on p. 3505]

*Population, amount of increase, and percent of increase, United States, by decades, 1790–1980*

[In thousands]

| Year | Population | Increases in the decade | | Year | Population Year | Increases in the decade | |
|---|---|---|---|---|---|---|---|
| | | Amount | Percent | | | Amount | Percent |
| 1790 | 3,929 | | | 1900 | 76,129 | 13,073 | 20.7 |
| 1800 | 5,308 | 1,379 | 35.1 | 1910 | 92,267 | 16,138 | 21.2 |
| 1810 | 7,240 | 1,931 | 36.4 | 1920 | 107,190 | 14,923 | 16.2 |
| 1820 | 9,638 | 2,399 | 33.1 | 1930 | 123,091 | 15,901 | 14.8 |
| 1830 | 12,866 | 3,228 | 33.5 | (1930) | (122,775) | | |
| 1840 | 17,069 | 4,203 | 32.7 | 1940 | 131,993 | 9,218 | 7.5 |
| 1850 | 23,260 | 6,191 | 36.3 | 1950 | 140,561 | 8,568 | 6.5 |
| 1860 | 31,502 | 8,242 | 35.4 | 1960 | 146,987 | 6,426 | 4.6 |
| 1870 | 39,904 | 8,402 | 26.7 | 1970 | 151,170 | 4,183 | 2.8 |
| 1880 | 50,262 | 10,358 | 26.0 | 1980 | 153,022 | 1,852 | 1.2 |
| 1890 | 63,056 | 12,794 | 25.5 | | | | |

Source: National Resources Committee, *The Problems of a Changing Population* (1938) pp. 21, 24.

NOTES

The absolute numbers for all dates after 1850 represent estimates as of July 1, for each census year. The number for 1870 has been adjusted in accordance with a census estimate for underenumeration. A similar adjustment has been made in accordance with an estimate by this Committee of apparent underenumeration in 1920.

The estimates of population after 1930 are based upon Hypothesis B, which includes an assumption of medium mortality, medium fertility, and no annual net immigration after 1940.

The increase during the decade from 1930–1940 is based upon a population of 122,775,000 as of the beginning of the decade. This is the figure of the Bureau of the Census, rather than the corrected figure for 1930 developed by the National Resources Committee.

## EXHIBIT No. 543

[Chart based on following statistical data appears in text on p. 3507]

*Gross and net capital formation, 1919–1937*

(Private and public)

[In millions of dollars]

| Year | Gross Capital Formation | Net Capital Formation | Year | Gross Capital Formation | Net Capital Formation |
|---|---|---|---|---|---|
| 1919 | 19,341 | 10,517 | 1929 | 20,298 | 10,082 |
| 1920 | 22,100 | 11,650 | 1930 | 13,662 | 3,879 |
| 1921 | 11,488 | 3,683 | 1931 | 8,464 | −278 |
| 1922 | 13,282 | 5,802 | 1932 | 3,147 | −4,427 |
| 1923 | 18,199 | 9,691 | 1933 | 4,268 | −2,987 |
| 1924 | 15,245 | 6,823 | 1934 | 6,123 | −1,533 |
| 1925 | 19,211 | 10,644 | 1935 | 10,027 | 2,189 |
| 1926 | 19,037 | 9,734 | 1936 | 14,594 | 6,301 |
| 1927 | 18,208 | 8,859 | 1937 | 18,846 | 9,531 |
| 1928 | 17,824 | 8,168 | | | |

Source: Kuznets, *National Income and Capital Formation, 1919–1935*, except that data for 1934–1937 are preliminary and are reproduced with the special permission of Dr. Kuznets and the National Bureau of Economic Research.

## EXHIBIT No. 544

[Chart based on following statistical data appears in text on p. 3509]

*Business gross capital formation, capital consumption, and net capital formation (excluding inventories), 1919–1937*

[In millions of dollars]

| Years | Gross Capital Formation | Capital Consumption | | Net Capital Formation | Years | Gross Capital Formation | Capital Consumption | | Net Capital Formation |
|---|---|---|---|---|---|---|---|---|---|
| | | Amount | Percent of Gross | | | | Amount | Percent of Gross | |
| 1919 | 8,996 | 6,297 | 70.0 | 2,699 | 1929 | 11,489 | 7,134 | 62.1 | 4,355 |
| 1920 | 9,306 | 7,263 | 78.0 | 2,043 | 1930 | 9,280 | 6,746 | 72.7 | 2,534 |
| 1921 | 6,112 | 5,492 | 89.8 | 620 | 1931 | 5,768 | 6,058 | 105.0 | −290 |
| 1922 | 6,631 | 5,293 | 79.8 | 1,338 | 1932 | 3,116 | 5,200 | 166.9 | −084 |
| 1923 | 8,567 | 6,002 | 70.0 | 2,565 | 1933 | 2,987 | 4,921 | 164.7 | −1,934 |
| 1924 | 8,475 | 5,857 | 69.1 | 2,618 | 1934 | 4,318 | 5,135 | 118.9 | −817 |
| 1925 | 9,349 | 5,954 | 63.7 | 3,395 | 1935 | 5,420 | 5,299 | 97.8 | 121 |
| 1926 | 10,082 | 6,550 | 65.0 | 3,532 | 1936 | 7,120 | 5,577 | 78.3 | 1,543 |
| 1927 | 9,938 | 6,457 | 65.0 | 3,481 | 1937 | 9,239 | 6,235 | 67.7 | 3,004 |
| 1928 | 10,237 | 6,674 | 65.2 | 3,563 | | | | | |

Source: Kuznets, *National Income and Capital Formation, 1919–1935* (New York, 1937), pp. 40, 48. Data for 1934–1937 are preliminary and reproduced with special permission of Dr. Kuznets and the National Bureau of Economic Research.

## Exhibit No. 545

[Chart based on following statistical data appears in text on p. 3516]

*All construction in the United States, 1920–1937*

[Millions of dollars]

| Year | Public | Private | Total | Year | Public | Private | Total |
|---|---|---|---|---|---|---|---|
| 1920 | 1,714 | 4,622 | 6,336 | 1929 | 2,928 | 7,591 | 10,519 |
| 1921 | 1,678 | 4,427 | 6,105 | 1930 | 3,023 | 5,605 | 8,628 |
| 1922 | 2,076 | 6,307 | 8,383 | 1931 | 2,615 | 3,494 | 6,109 |
| 1923 | 1,921 | 7,722 | 9,643 | 1932 | 1,955 | 1,541 | 3,496 |
| 1924 | 2,264 | 8,226 | 10,490 | 1933 | 1,902 | 1,328 | 3,230 |
| 1925 | 2,546 | 9,264 | 11,810 | 1934 | 2,726 | 1,638 | 4.364 |
| 1926 | 2,470 | 9,123 | 11,593 | 1935 | 2,684 | 2,386 | 5,070 |
| 1927 | 2,786 | 9,001 | 11,787 | 1936 | 3,884 | 3.443 | 7.327 |
| 1928 | 2,932 | 8,640 | 11,572 | 1937 | 3,728 | 4,239 | 7,967 |

Source: Kuznets' *National Income and Capital Formation*, except that the data for 1934–1937 are preliminary and are reproduced with the special permission of Dr. Kuznets and the National Bureau of Economic Research.

## Exhibit No. 546

The White House,
*Washington, May 16, 1939.*

Hon. Joseph C. O'Mahoney,
*Chairman, Temporary National Economic Committee,*
*United States Senate, Washington, D. C.*

Dear Joe: In my message to the Congress initiating the work of the Temporary National Economic Committee, I had occasion to say that "Idle factories and idle workers profit no man." It may equally be said that idle dollars profit no man. The present phase of the hearings before the Committee bear directly upon this problem.

It is a matter of common knowledge that the dollars which the American people save each year are not yet finding their way back into productive enterprise in sufficient volume to keep our economic machine turning over at the rate required to bring about full employment. We have mastered the technique of creating necessary credit; we have now to deal with the problem of assuring its full use.

In the series of hearings which the Securities and Exchange Commission is to hold before your Committee, I take it that a major problem of your Committee will be to ascertain why a large part of our vast reservoir of money and savings have remained idle in stagnant pools.

Is it because our economy is leaving an era of rapid expansion and entering an era of steadier growth, calling for relatively less investment in capital goods?

Is it because of lag, leak, and friction in the operation of investment markets which pervert the normal flow of savings into nonproductive enterprise?

These are questions for your Committee to answer.

I know of no more urgent ones in the country today.

The hearings before your Committee, I hope, will assume the task of analyzing the financial machine in its relation to the creation of more needed wealth. We know that the mechanism can be improved. Improvement can only be made on a basis of clear analysis. Having made that analysis, I hope that your Committee will then be able to indicate ways by which the machine may be made to function more efficiently.

We have an immense amount of wealth which needs to be created in this country. Much of it can be created through private enterprise. Some of it can properly be created through quasi-public agencies. The problem is to use our added savings and increased credit to get this wealth moving, that is, to get it now in productive enterprise; and, at the same time, to make savings available for use in all categories of private enterprise, as well as for the great and recognized enterprises which can command capital, but have less actual need of capital than many smaller but equally deserving enterprises. There is also the problem of determining how credit can best be made available for instrumentalities of local

government and for those quasi-public enterprises which must do the work which cannot be done by private enterprise.

We have developed several methods of connecting money with men and materials so as to get useful work done. We shall need to use all of these opportunities, or, if you choose to put it differently, we must meet all of the demands made on our system, if we are to have lasting prosperity. It is our task to find and energetically adopt those specific measures which will bring together idle men, machines, and money. In proportion as we succeed, we shall strengthen the structure of democratic economy.

Very sincerely yours,

(Signed) FRANKLIN D. ROOSEVELT.

## EXHIBIT No. 547

[Chart based on following statistical data appears in text on p. 3524]

*Income-producing expenditures that offset saving* [1]

[In millions of dollars]

| Year | Plant | Equipment | Total plant and equipment | Year | Plant | Equipment | Total plant and equipment |
|---|---|---|---|---|---|---|---|
| 1921 | 2,344 | 2,751 | 5,095 | 1930 | 3,683 | 4,624 | 8,307 |
| 1922 | 2,536 | 3,130 | 5,666 | 1931 | 2,166 | 2,979 | 5,145 |
| 1923 | 3,137 | 4,628 | 7,765 | 1932 | 1,188 | 1,646 | 2,834 |
| 1924 | 3,183 | 4,359 | 7,542 | 1933 | 874 | 1,559 | 2,433 |
| 1925 | 3,456 | 4,613 | 8,069 | 1934 | 1,102 | 2,357 | 3,459 |
| 1926 | 4,031 | 4,903 | 8,934 | 1935 | 1,245 | 3,145 | 4,390 |
| 1927 | 3,960 | 4,649 | 8,609 | 1936 | 1,628 | 4,367 | 5,995 |
| 1928 | 3,942 | 4,807 | 8,749 | 1937 | 2,175 | 5,341 | 7,516 |
| 1929 | 4,365 | 5,680 | 10,045 | 1938 | 1,816 | 3,646 | 5,462 |

[1] For sources and methods see "Exhibit No. 558," appendix p. 4015, at p. 4015. See supplementary tables 1-a, 1-b, and 1-c in "Exhibit No. 557," appendix, p. 4014. See also revised figures subsequently submitted by Dr. Currie, infra, p. 4122.

## EXHIBIT No. 548

[Chart based on following statistical data appears in text on p. 3525]

*Income-producing expenditures that offset saving* [1]—Continued

[In millions of dollars]

| Year | Mining and manufacturing | All public utility | Railroad | Commercial and miscellaneous | Year | Mining and manufacturing | All public utility | Railroad | Commercial and miscellaneous |
|---|---|---|---|---|---|---|---|---|---|
| 1921 | 1,951 | 755 | 550 | 1,351 | 1930 | 2,449 | 1,893 | 865 | 2,335 |
| 1922 | 2,073 | 1,061 | 434 | 1,559 | 1931 | 1,402 | 1,340 | 360 | 1,596 |
| 1923 | 2,581 | 1,483 | 1,077 | 1,929 | 1932 | 921 | 722 | 164 | 801 |
| 1924 | 2,265 | 1,718 | 901 | 1,993 | 1933 | 993 | 405 | 101 | 645 |
| 1925 | 2,625 | 1,597 | 728 | 2,361 | 1934 | 1,445 | 472 | 218 | 915 |
| 1926 | 3,045 | 1,621 | 883 | 2,625 | 1935 | 1,810 | 583 | 166 | 1,194 |
| 1927 | 2,757 | 1,694 | 751 | 2,589 | 1936 | 2,483 | 748 | 306 | 1,668 |
| 1928 | 2,962 | 1,644 | 673 | 2,601 | 1937 | 3,039 | 1,024 | 525 | 1,958 |
| 1929 | 3,490 | 1,917 | 840 | 2,836 | 1938 | 2,013 | 925 | 238 | 1,468 |

[1] For sources and methods see "Exhibit No. 558," appendix p. 4015, at p. 4016. See also supplementary table I-a, total plant and equipment expenditures, by type of business, in "Exhibit No. 557," appendix, p. 4014.

## EXHIBIT No. 549

[Chart based on following statistical data appears in text on p. 3526]

*Income-producing expenditures that offset savings* [1]—Continued

[In millions of dollars]

| Year | Agriculture | Change in Inventories | Foreign—Current Account Balance | Year | Agriculture | Change in Inventories | Foreign—Current Account Balance |
|---|---|---|---|---|---|---|---|
| 1921 | 488 | 47 | +1,414 | 1930 | 765 | −631 | +629 |
| 1922 | 539 | 514 | +450 | 1931 | 446 | −1,190 | −160 |
| 1923 | 695 | 2,964 | +167 | 1932 | 225 | −2,327 | +131 |
| 1924 | 665 | −1,056 | +712 | 1933 | 289 | −1,114 | +215 |
| 1925 | 758 | 1,523 | +386 | 1934 | 409 | −1,748 | +461 |
| 1926 | 759 | 1,246 | +156 | 1935 | 637 | 1,145 | +183 |
| 1927 | 818 | 308 | +507 | 1936 | 786 | 2,300 | −153 |
| 1928 | 869 | 102 | +725 | 1937 | 1,000 | 4,196 | −24 |
| 1929 | 962 | 2,146 | +447 | 1938 | 820 | −1,250 | +965 |

[1] For sources and methods see "Exhibit No. 558", appendix p. 4015, at p. 4016. See supplementary table 1-a in "Exhibit No. 557," appendix, p. 4014. See also revised figures subsequently submitted by Dr. Currie, infra, p. 4122.

## EXHIBIT No. 550

[Chart based on following statistical data appears in text on p. 3527]

*Income-producing expenditures that offset savings* [1]—Continued

[In millions of dollars]

| Year | Private Housing | Nonprofit Institutions | Change in Consumer Credit [2] | Year | Private Housing | Nonprofit Institutions | Change in Consumer Credit [2] |
|---|---|---|---|---|---|---|---|
| 1921 | 1,970 | 297 | 340 | 1930 | 1,600 | 467 | −630 |
| 1922 | 3,280 | 387 | 1,040 | 1931 | 1,110 | 356 | −1,130 |
| 1923 | 4,170 | 426 | 1,180 | 1932 | 330 | 194 | −1,400 |
| 1924 | 4,420 | 457 | 440 | 1933 | 270 | 96 | −140 |
| 1925 | 4,940 | 610 | 900 | 1934 | 290 | 96 | 370 |
| 1926 | 4,500 | 692 | 690 | 1935 | 680 | 114 | 830 |
| 1927 | 4,250 | 712 | 240 | 1936 | 1,250 | 134 | 1,290 |
| 1928 | 4,000 | 664 | 800 | 1937 | 1,450 | 190 | 1,000 |
| 1929 | 2,810 | 568 | 860 | 1928 | 1,500 | 190 | −1,400 |

[1] For sources and methods see "Exhibit No. 558", appendix p. 4015, at p. 4016. See also revised figures subsequently submitted by Dr. Currie, infra, p. 4122.
[2] Subject to revision.

## EXHIBIT No. 551

[Chart based on following statistical data appears in text on p. 3528]

*Income-producing expenditures that offset saving*—Continued

[In millions of dollars]

| Year | Government—Federal | Government—State and Local | Year | Government—Federal | Government—State and Local |
|---|---|---|---|---|---|
| 1921 | −250 | 899 | 1930 | +386 | 1,114 |
| 1922 | −54 | 799 | 1931 | 2,419 | 1,365 |
| 1923 | −301 | 664 | 1932 | 1,880 | 807 |
| 1924 | −319 | 934 | 1933 | 1,928 | −690 |
| 1925 | −295 | 822 | 1934 | 3,428 | −1,159 |
| 1926 | −509 | 754 | 1935 | 3,730 | −493 |
| 1927 | −459 | 825 | 1936 | 4,337 | −398 |
| 1928 | −78 | 810 | 1937 | 1,092 | −291 |
| 1929 | −235 | 928 | 1938 | 2,377 | |

[1] For sources and methods see "Exhibit No. 558," appendix p. 4015, at p. 4017.

## EXHIBIT No. 552

[Chart based on following statistical data appears in text on p. 3530]

*Mining and manufacturing expenditures for plant and equipment and index of industrial production* [1]

| Year | Plant and Equipment expenditures ($000,000) | Index of production | Year | Plant and Equipment expenditures ($000,000) | Index of production |
|---|---|---|---|---|---|
| 1921 | 1,951 | 67 | 1930 | 2,449 | 96 |
| 1922 | 2,073 | 85 | 1931 | 1,402 | 81 |
| 1923 | 2,581 | 101 | 1932 | 921 | 64 |
| 1924 | 2,265 | 95 | 1933 | 993 | 76 |
| 1925 | 2,625 | 104 | 1934 | 1,445 | 79 |
| 1926 | 3,015 | 108 | 1935 | 1,810 | 90 |
| 1927 | 2,757 | 106 | 1936 | 2,483 | 105 |
| 1928 | 2,962 | 111 | 1937 | 3,039 | 110 |
| 1929 | 3,490 | 119 | 1938 | 2,013 | 86 |

[1] For sources see "Exhibit No. 558," appendix p. 4015, at p. 4017.

## EXHIBIT No. 553

[Chart based on following statistical data appears in text on p. 3531]

*Electric power expenditures for plant and equipment, total installed capacity, and peak output* [1]

| Year | Index of Total Output in January 1926–30 Av.=100 | Index of Total Installed Capacity as of January 1 1926–30 Av.=100 | Plant and Equipment Expenditures ($000,000) | Year | Index of Total Output in January 1926–30 Av.=100 | Index of Total Installed Capacity as of January 1 1926–30 Av.=100 | Plant and Equipment Expenditures ($000,000) |
|---|---|---|---|---|---|---|---|
| 1921 | 48.0 | 52.4 | 288 | 1930 | 116.3 | 115.2 | 855 |
| 1922 | 51.7 | 55.7 | 408 | 1931 | 107.1 | 124.1 | 555 |
| 1923 | 64.3 | 58.1 | 738 | 1932 | 102.0 | 128.8 | 265 |
| 1924 | 70.5 | 63.5 | 844 | 1933 | 94.1 | 131.1 | 120 |
| 1925 | 75.7 | 71.0 | 787 | 1934 | 103.8 | 132.0 | 137 |
| 1926 | 83.7 | 85.6 | 718 | 1935 | 113.0 | 130.4 | 179 |
| 1927 | 92.0 | 92.5 | 738 | 1936 | 124.2 | 131.4 | 269 |
| 1928 | 97.4 | 98.4 | 701 | 1937 | 138.9 | 133.2 | 424 |
| 1929 | 110.5 | 108.2 | 793 | 1938 | 132.0 | 135.2 | 403 |

[1] For sources see "Exhibit No. 558", appendix p. 4015, at p. 4017.

## EXHIBIT No. 554

[Chart based on following statistical data appears in text on p. 3532]

*Railroad equipment expenditures, available freight cars, and carloadings* [1]

| Year | Average Freight Cars Owned | Average Serviceable Cars | Surplus Cars Lowest Reported | Carloadings Highest Week | Equipment Expenditure |
|---|---|---|---|---|---|
| | (*000*) | (*000*) | (*000*) | (*000*) | (*$000,000*) |
| 1921 | 2,317 | 2,008 | 80 | 965 | 311 |
| 1922 | 2,304 | 1,993 | 4 | 1,000 | 246 |
| 1923 | 2,303 | 2,113 | 11 | 1,098 | 682 |
| 1924 | 2,331 | 2,146 | 94 | 1,113 | 494 |
| 1925 | 2,355 | 2,168 | 104 | 1,124 | 338 |
| 1926 | 2,345 | 2,190 | 79 | 1,209 | 372 |
| 1927 | 2,329 | 2,191 | 135 | 1,129 | 289 |
| 1928 | 2,298 | 2,154 | 86 | 1,197 | 224 |
| 1929 | 2,267 | 2,132 | 107 | 1,203 | 321 |
| 1930 | 2,270 | 2,128 | 373 | 985 | 328 |
| 1931 | 2,229 | 2,053 | 532 | 770 | 73 |
| 1932 | 2,160 | 1,922 | 545 | 650 | 36 |
| 1933 | 2,072 | 1,779 | 385 | 671 | 15 |
| 1934 | 1,969 | 1,674 | 318 | 646 | 92 |
| 1935 | 1,863 | 1,584 | 208 | 734 | 79 |
| 1936 | 1,770 | 1,526 | 112 | 826 | 159 |
| 1937 | 1,723 | 1,543 | 102 | 847 | 323 |
| 1938 | 1,713 | 1,496 | 139 | 726 | 115 |

[1] For sources and methods see "Exhibit No. 558", appendix p. 4015, at p. 4017.

## EXHIBIT No. 555

[Chart based on following statistical data appears in text on p. 3534]

*Composition of income-producing expenditures that offset saving, 1925, 1929, and 1937* [1]

| | 1925 | | 1929 | | 1937 | |
|---|---|---|---|---|---|---|
| | Millions of Dollars | % of Total | Millions of Dollars | % of Total | Millions of Dollars | % of Total |
| Government | 527 | 3.1 | 693 | 3.9 | 801 | 5.3 |
| Plant & Equipment | 8,069 | 47.5 | 10,045 | 57.1 | 7,516 | 49.6 |
| Mining & Manufact | 2,625 | 15.4 | 3,490 | 19.8 | 3,039 | 20.0 |
| Railroads & Util | 2,325 | 13.7 | 2,757 | 15.7 | 1,549 | 10.3 |
| Other | 3,119 | 18.4 | 3,798 | 21.6 | 2,928 | 19.3 |
| Housing & Nonprofit Institutions | 5,585 | 32.9 | 3,409 | 19.4 | 1,670 | 11.0 |
| Foreign Bal | 386 | 2.3 | 447 | 2.5 | −24 | −0.2 |
| Change in Consumer Credit | 900 | 5.3 | 860 | 4.9 | 1,000 | 6.6 |
| Change in Inventories | 1,523 | 8.9 | 2,146 | 12.2 | 4,196 | 27.7 |
| Total | 16,990 | 100.0 | 17,600 | 100.0 | 15,159 | 100.0 |

[1] See supplementary table V, in "Exhibit No. 557," appendix, p.4015. See also revised figures subsequently submitted by Dr. Currie, infra, p. 4122.

For sources see "Exhibit No. 558," appendix p. 4015.

## EXHIBIT No. 556

[Chart based on following statistical data appears in text on p. 3535]

*National income and total income-producing expenditures that offset saving* [1]

[In millions of dollars]

| Year | Gross National Income | Net National Income | Income-Producing Expenditures | | |
|---|---|---|---|---|---|
| | | | Total | Adjusted Total | % of Gross National Income |
| 1921 | 63,751 | 57,683 | 9,832 | | |
| 1922 | 64,295 | 58,704 | 12,113 | 11,201 | 17.4 |
| 1923 | 74,784 | 68,281 | 17,070 | 15,087 | 20.2 |
| 1924 | 75,161 | 68,904 | 13,169 | 14,729 | 19.6 |
| 1925 | 79,686 | 73,275 | 16,990 | 15,462 | 19.4 |
| 1926 | 84,813 | 77,600 | 16,498 | 16,695 | 19.7 |
| 1927 | 82,708 | 75,412 | 15,028 | 15,616 | 18.9 |
| 1928 | 86,167 | 78,633 | 15,803 | 15,493 | 18.0 |
| 1929 | 89,984 | 81,917 | 17,600 | 16,881 | 18.8 |
| 1930 | 79,764 | 71,965 | 11,270 | 13,802 | 17.3 |
| 1931 | 63,901 | 56,709 | 8,251 | 9,459 | 14.8 |
| 1932 | 47,446 | 41,034 | 2,460 | 4,776 | 10.1 |
| 1933 | 46,217 | 40,101 | 3,014 | 2,792 | 6.0 |
| 1934 | 55,839 | 49,290 | 5,215 | 4,335 | 7.8 |
| 1935 | 61,681 | 55,137 | 10,600 | 8,446 | 13.7 |
| 1936 | 69,800 | 63,105 | 14,783 | 13,110 | 18.8 |
| 1937 | 78,200 | 70,727 | 15,159 | 15,009 | 19.2 |
| 1938 | 70,900 | 63,550 | 7,866 | 10,783 | 15.2 |

[1] For sources and methods see "Exhibit No. 558," appendix p. 4015, at p. 4018. See also revised figures subsequently submitted by Dr. Currie, infra, p. 4122.

## Exhibit No. 557

### Supplementary Table I–a.[1]—*Plant and equipment expenditures by type of business*

TOTAL

[In millions of dollars]

| | Total | Railroads | Electrical Power | Telephones | Transit | Other Utilities | Mining and Manufactures | Agriculture | Commercial and Miscellaneous |
|---|---|---|---|---|---|---|---|---|---|
| 1919 | 6,860 | 374 | 268 | 132 | 123 | 155 | 2,987 | 1,128 | 1,693 |
| 1920 | 8,034 | 630 | 447 | 205 | 162 | 181 | 3,412 | 1,197 | 1,800 |
| 1921 | 5,095 | 550 | 288 | 230 | 100 | 137 | 1,951 | 488 | 1,351 |
| 1922 | 5,666 | 434 | 408 | 266 | 151 | 236 | 2,073 | 539 | 1,559 |
| 1923 | 7,765 | 1,077 | 738 | 320 | 180 | 245 | 2,581 | 695 | 1,929 |
| 1924 | 7,542 | 901 | 841 | 386 | 133 | 355 | 2,265 | 665 | 1,993 |
| 1925 | 8,069 | 728 | 787 | 387 | 123 | 300 | 2,625 | 758 | 2,361 |
| 1926 | 8,934 | 883 | 718 | 408 | 116 | 380 | 3,045 | 759 | 2,625 |
| 1927 | 8,609 | 751 | 738 | 399 | 130 | 427 | 2,757 | 818 | 2,589 |
| 1928 | 8,749 | 673 | 701 | 460 | 135 | 348 | 2,962 | 869 | 2,601 |
| 1929 | 10,945 | 840 | 793 | 620 | 135 | 369 | 3,490 | 962 | 2,836 |
| 1930 | 8,307 | 865 | 855 | 616 | 124 | 298 | 2,149 | 765 | 2,335 |
| 1931 | 5,145 | 360 | 555 | 411 | 132 | 243 | 1,402 | 446 | 1,596 |
| 1932 | 2,834 | 164 | 265 | 255 | 61 | 141 | 921 | 225 | 802 |
| 1933 | 2,433 | 101 | 120 | 167 | 46 | 72 | 993 | 289 | 645 |
| 1934 | 3,459 | 218 | 137 | 180 | 78 | 77 | 1,445 | 409 | 915 |
| 1935 | 4,390 | 166 | 179 | 195 | 117 | 92 | 1,810 | 637 | 1,194 |
| 1936 | 5,995 | 306 | 269 | 250 | 109 | 120 | 2,483 | 786 | 1,672 |
| 1937 | 7,516 | 525 | 424 | 349 | 101 | 150 | 3,039 | 970 | 1,958 |
| 1938 | 5,462 | 238 | 403 | 319 | 83 | 120 | 2,013 | 820 | 1,466 |

[1] See also "Exhibits Nos. 547, 548 and 549," supra, pp. 4010 and 4011.

### Supplementary Table I–b.[1]—*Plant and equipment expenditures by type of business*

PLANT

[In millions of dollars]

| | Total | Railroads | Electrical Power | Telephones | Transit | Other Utilities | Mining and Manufactures | Agriculture | Commercial and Miscellaneous |
|---|---|---|---|---|---|---|---|---|---|
| 1919 | 2,982 | 143 | 161 | 64 | 63 | 113 | 1,363 | 490 | 585 |
| 1920 | 3,558 | 243 | 268 | 109 | 82 | 122 | 1,627 | 450 | 657 |
| 1921 | 2,344 | 212 | 170 | 90 | 59 | 93 | 930 | 190 | 600 |
| 1922 | 2,536 | 175 | 237 | 107 | 85 | 157 | 880 | 250 | 645 |
| 1923 | 3,137 | 351 | 421 | 143 | 74 | 166 | 950 | 287 | 735 |
| 1924 | 3,183 | 382 | 473 | 177 | 56 | 238 | 821 | 275 | 761 |
| 1925 | 3,458 | 373 | 433 | 192 | 52 | 199 | 935 | 282 | 990 |
| 1926 | 4,031 | 492 | 388 | 206 | 51 | 239 | 1,196 | 282 | 1,177 |
| 1927 | 3,960 | 447 | 391 | 196 | 77 | 285 | 1,074 | 284 | 1,206 |
| 1928 | 3,942 | 438 | 364 | 227 | 90 | 227 | 1,137 | 278 | 1,181 |
| 1929 | 4,365 | 503 | 397 | 328 | 82 | 256 | 1,335 | 278 | 1,186 |
| 1930 | 3,683 | 521 | 419 | 310 | 85 | 186 | 945 | 220 | 997 |
| 1931 | 2,166 | 284 | 266 | 154 | 69 | 174 | 482 | 155 | 582 |
| 1932 | 1,188 | 126 | 125 | 80 | 29 | 100 | 378 | 75 | 275 |
| 1933 | 874 | 85 | 55 | 41 | 21 | 50 | 374 | 105 | 143 |
| 1934 | 1,102 | 122 | 62 | 43 | 30 | 51 | 509 | 120 | 165 |
| 1935 | 1,245 | 83 | 79 | 46 | 40 | 63 | 555 | 170 | 209 |
| 1936 | 1,628 | 139 | 116 | 63 | 45 | 81 | 708 | 200 | 276 |
| 1937 | 2,175 | 188 | 182 | 100 | 39 | 98 | 970 | 230 | 368 |
| 1938 | 1,816 | 117 | 173 | 88 | 41 | 78 | 763 | 210 | 346 |

[1] See also "Exhibit No. 547," supra, p. 4010.

SUPPLEMENTARY TABLE I–c.[1]—*Plant and equipment expenditures by type of business*

EQUIPMENT

[In millions of dollars]

| | Total | Railroads | Electrical Power | Telephones | Transit | Other Utilities | Mining and Manufactures | Agriculture | Commercial and Miscellaneous |
|---|---|---|---|---|---|---|---|---|---|
| 1919 | 3,878 | 231 | 107 | 68 | 60 | 42 | 1,624 | 638 | 1,108 |
| 1920 | 4,476 | 387 | 179 | 96 | 80 | 59 | 1,785 | 747 | 1,143 |
| 1921 | 2,751 | 338 | 118 | 140 | 41 | 44 | 1,021 | 298 | 751 |
| 1922 | 3,130 | 259 | 171 | 159 | 66 | 79 | 1,193 | 289 | 914 |
| 1923 | 4,628 | 716 | 317 | 177 | 106 | 79 | 1,631 | 408 | 1,194 |
| 1924 | 4,359 | 519 | 371 | 209 | 77 | 117 | 1,444 | 390 | 1,232 |
| 1925 | 4,613 | 355 | 354 | 195 | 71 | 101 | 1,690 | 476 | 1,371 |
| 1926 | 4,903 | 391 | 330 | 202 | 65 | 141 | 1,849 | 477 | 1,448 |
| 1927 | 4,649 | 304 | 347 | 203 | 53 | 142 | 1,683 | 534 | 1,383 |
| 1928 | 4,807 | 235 | 337 | 233 | 45 | 121 | 1,825 | 591 | 1,420 |
| 1929 | 5,680 | 337 | 396 | 292 | 53 | 113 | 2,155 | 684 | 1,650 |
| 1930 | 4,624 | 344 | 436 | 306 | 39 | 112 | 1,504 | 545 | 1,338 |
| 1931 | 2,979 | 76 | 289 | 257 | 63 | 69 | 920 | 291 | 1,014 |
| 1932 | 1,646 | 38 | 140 | 175 | 32 | 41 | 543 | 150 | 527 |
| 1933 | 1,559 | 16 | 65 | 126 | 25 | 22 | 619 | 184 | 502 |
| 1934 | 2 357 | 96 | 75 | 137 | 48 | 26 | 936 | 289 | 750 |
| 1935 | 3,145 | 83 | 100 | 149 | 77 | 29 | 1,255 | 467 | 985 |
| 1936 | 4,367 | 167 | 153 | 187 | 64 | 39 | 1,775 | 586 | 1 396 |
| 1937 | 5,341 | 337 | 242 | 249 | 62 | 52 | 2,069 | 740 | 1,590 |
| 1938 | 3,646 | 121 | 230 | 231 | 42 | 42 | 1,250 | 610 | 1,120 |

[1] See also "Exhibit No. 547," supra, p. 4010.

SUPPLEMENTARY TABLE V.[1]—*Composition of income-producing expenditures that offset saving, average 1923–29*

| | Millions of dollars | Percent of total | | Millions of dollars | Percent of total |
|---|---|---|---|---|---|
| Government | 506 | 3.2 | Housing and Nonprofit Institutions | 4,780 | 29.9 |
| Plant and Equipment | 8,530 | 53.3 | Foreign Bal | 429 | 2.7 |
| Mining and Manufacturing | 2,818 | 17.6 | Change in Consumer Credit | 730 | 4.6 |
| Railroads and Utilities | 2,504 | 15.6 | Change in Inventories | 1,033 | 6.5 |
| Other | 3,208 | 20.0 | Total | 16,008 | 100.0 |

[1] See also "Exhibit No. 555", supra, p. 4013.

## EXHIBIT NO. 558

### APPENDIX ON SOURCES AND METHODS TO STATEMENT SUBMITTED TO THE TEMPORARY NATIONAL ECONOMIC COMMITTEE

By LAUCHLIN CURRIE

*Exhibit No. 547*

PLANT AND EQUIPMENT

*Mining and manufacturing.*—Plant expenditures consist of factory construction and mining development outlays (exclusive of purchases of machinery, land, and mineral reserves). The factory construction estimates are those of the Department of Commerce, which are based on data compiled by the F. W. Dodge Corporation. Those for mining development outlays have been prepared by Mr. Terborgh, of the Division of Research and Statistics of the Board of Governors, of the Federal Reserve System, and are strictly preliminary. They include the cost of drilling oil and gas wells, and such development costs in other branches of mining as are normally chargeable to capital account. The estimates for mining and manufacturing equipment have also been prepared by Mr. Terborgh.

They were obtained by (1) tabulating from the censuses of manufactures the output of machinery and equipment going into this field (including estimated allocations of a part of the output of items used also in other fields); (2) interpolating for intercensal years; (3) adjusting for exports and imports to get the output going to domestic users; (4) raising the value thus derived to allow for transportation costs and distributive margins between producer and consumer; and (5) raising it further to allow for estimated undertabulation and for an estimate of equipment produced within the establishments using it (hence not included in the census data). Only machinery and equipment are included which are customarily charged to capital account by the users. Studies of capital formation by the National Bureau of Economic Reserch have been used to facilitate some steps in the procedure.

*Commercial and miscellaneous.*—Plant in this case consists of commercial buildings, for the construction of which Department of Commerce estimates have been used. These are derived from data compiled by the F. W. Dodge Corporation. For machinery and equipment, the estimates have been prepared by Mr. Terborgh, by a procedure identical with that just described in the case of mining and manufacturing.

*Railroads.*—Estimates for both plant (way and structures) and equipment have been based on data compiled by the Association of American Railroads. The data as published by the association have been adjusted by the subtraction of land purchases (from I. C. C. reports) and by the addition of an estimate for Class II and III carriers.

*Public utilities.*—This classification includes electric power, telephones, transit, gas, pipe lines, telegraphs, and cables. The series used, both for total expenditures and for the break-down between plant and equipment, are those of the Department of Commerce, which are in turn based on tabulations by trade associations and trade journals, as described in the Department's publication, *Construction Activity in the United States, 1915–37*,

*Agriculture.*—The figures are Department of Agriculture estimates for farm capital expenditures, exclusive of passenger automobiles. It should be observed that these estimates are now undergoing a thorough revision, which is expected to be completed shortly. The new estimates will, of course, supersede the ones used here.

*Exhibit No. 548*

See note above for Exhibit No. 547.

*Exhibit No. 549*

For agricultural plant and equipment expenditures see note above for Exhibit No. 547.

The foreign current balance is derived from The Balance of International Payments of the United States, Department of Commerce.

*Exhibit No. 549*

*Inventories.*—Figures for 1921 to 1933 are derived from data published in *Commodity Flow and Capital Formation*, by Simon Kuznets, of the National Bureau of Economic Research. The published data represent the value in current dollars of the change in physical inventories (expressed as the total value of all inventories in 1929 dollars). From these totals were deducted the corresponding figures for inventories in the finance group. Figures for 1934 to 1938 are estimates. In general, methods similar to those used by Kuznets were adopted in making these estimates. For 1934 and 1935, *Statistics of Income* data furnished the primary basis for the estimates. For 1936 to 1938, the *Dun and Bradstreet Surveys* provided the primary source of data.

*Exhibit No. 550*

HOUSING

*Nonfarm.*—The estimates used were prepared for the National Bureau of Economic Research by D. L. Wickens and R. R. Foster. They relate to projects started. The 1937 and 1938 estimates are by Mr. Foster. Publicly financed construction has been deducted.

*Farm.*—The series used has been derived from Department of Agriculture estimates of the value of farm construction, on the assumption that residential construction constitutes about 47 percent of the total. While this percentage appears to be supported by the Department's latest findings, the estimates of total farm construction used here are undergoing revision, and will shortly be superseded. The series for farm residential construction included in the above total for housing must be regarded, therefore, as merely provisional.

CONSUMER CREDIT

This series is preliminary and subject to revision. It was worked up by Ralph Nugent, Russell Sage Foundation.

CONSTRUCTION BY NONPROFIT INSTITUTIONS

In this classification are included privately financed religious, memorial, educational, social, recreational, medical, and other institutional buildings not operated for profit. The estimates are those of the Department of Commerce, and were developed largely from data collected by the F. W. Dodge Corporation.

*Exhibit No. 551*

NET ADDITION TO DISPOSABLE CASH INCOME OF THE COMMUNITY ATTRIBUTABLE TO GOVERNMENT

This series attempts to measure the difference between the outlays of public bodies that add to the community's disposable cash income and the receipts that represent drafts upon disposable cash income.

The series for the Federal Government was derived by applying adjustments directly to Treasury receipts and expenditures. The major adjustments were the elimination of noncash items, the consolidation of the transactions of Government trust accounts, corporations, and credit agencies with those of the Treasury proper, the elimination of receipt and expenditure items that leave the cash income of the community unaffected, and the distrubution of lump-sum transactions over the period during which they influence cash income. The series for State and local governments was derived by the indirect process of adjusting changes in the gross outstanding debt for changes in trust and sinking-fund holdings and in the cash balances of these governmental units.

*Exhibit No. 552*

For mining and manufacturing plant and equipment expenditures see note above for Exhibit No. 547. The index of industrial production is that of the Board of Governors of the Federal Reserve System.

*Exhibit No. 553*

For electric utility expenditures see note above for Exhibit No. 547.

Data on total installed capacity as of December 31 are published in *Electric Power Statistics* of the Federal Power Commission. These data were shifted to January 1 of the following year and expressed in terms of the average for the years 1926 to 1930 to obtain the index of capacity.

Data on total monthly production of electric energy are compiled by the Federal Power Commission. The January totals of these data were expressed in terms of the average for 1926 to 1930 to obtain the index of output for comparison with the above index of capacity. The month of January was used in constructing this index because it is most nearly comparable to the capacity figures in time and also because it corresponds approximately to the seasonal high for the year.

*Exhibit No. 554*

Equipment expenditures are for Class I railroads and are compiled by the Association of American Railroads.

The figures on frieght cars owned are averages of monthly data and also relate to Class I railroads. They include cars leased to other roads, but not private-line cars. For the period after 1923, data were compiled by the Association of American Railroads. Figures were estimated for earlier years by reference to Interstate Commerce Commission data on cars installed and retired.

Serviceable cars as shown here are the monthly averages of cars owned less bad-order cars. This latter series includes all cars undergoing or awaiting repairs, as reported by the Association of American Railroads. Data are for Class I roads, which account for about 99 percent of all equipment owned by the railroads.

Data on lowest number of surplus cars reported during the year are obtained from material compiled by the Association of American Railroads. Data cover Class I railroads and represent a daily average for the last period of the month (last week through 1932, last half of month thereafter).

Data on the highest week's car loadings are obtained from material compiled by the Association of American Railroads.

*Exhibit No. 556*

GROSS NATIONAL INCOME

Figures for 1921 to 1935 are derived from data published in *National Income and Capital Formation*, by Simon Kuznets of the National Bureau of Economic Research. From the published figures of gross national product was deducted imputed rents and gross savings of Government, so as to make them comparable with the "income-producing expenditures" series. Figures for 1936 to 1938, inclusive, are estimates based on the national income data of the Department of Commerce.

NET NATIONAL INCOME

Figures for 1921 to 1935 are derived from data published in *National Income and Capital Formation*, by Simon Kuznets of the National Bureau of Economic Research. From the above series of gross national income was deducted (a) total capital consumption in business use and (b) total capital consumption in residential use less imputed rents. For 1936 to 1938, these depreciation figures were estimated from samples, and minor adjustments were made in Kuznets' data for 1934 and 1935.

SCHEDULE A.—*Funds obtained for capital purposes from income, Class I railways and their lessor companies*

(1921–37)

| Year | Depreciation charges to operating expenses | | Retirements charged to operating expenses, equipment | Increases in depreciation reserve for miscellaneous nonoperating physical properties | Total depreciation and retirements | Undistributed earnings | From other income sources this or other years | Aids, gifts, and grants | Total available from income |
|---|---|---|---|---|---|---|---|---|---|
| | Road | Equipment | | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1921 | $6,795,000 | $143,077,000 | $6,096,000 | $161,682 | $156,129,682 | $16,698,367 | $272,208,181 | $6,709,261 | $451,745,491 |
| 1922 | 7,099,000 | 145,146,000 | 17,562,000 | [1] *434,239* | 169,372,761 | 90,168,431 | 196,976,629 | 5,592,862 | 462,110,683 |
| 1923 | 8,366,000 | 157,884,000 | 38,820,000 | 8,002,464 | 213,072,464 | 261,365,413 | 116,048,131 | 5,095,401 | 595,581,409 |
| 1924 | 8,746,000 | 172,419,000 | 26,899,000 | [1] *7,375,126* | 200,688,874 | 252,876,480 | 93,620,301 | 5,449,210 | 552,634,865 |
| 1925 | 9,574,000 | 184,592,000 | 29,756,000 | 115,913 | 224,037,913 | 383,799,739 | 89,932,076 | 4,053,206 | 701,822,934 |
| 1926 | 10,389,000 | 191,952,000 | 29,156,000 | 1,074,929 | 232,571,929 | 440,269,587 | 65,863,315 | 4,766,969 | 743,471,800 |
| 1927 | 12,484,000 | 201,181,000 | 25,522,000 | 765,857 | 239,952,857 | 199,240,336 | 101,687,305 | 3,669,712 | 544,550,210 |
| 1928 | 9,845,000 | 205,562,000 | 26,313,000 | 781,264 | 242,501,264 | 329,898,532 | 187,867,916 | 7,354,136 | 767,621,848 |
| 1929 | 10,825,000 | 208,847,000 | 39,702,000 | 1,848,295 | 261,222,295 | 443,091,072 | 114,927,931 | 3,182,398 | 822,423,696 |
| 1930 | 10,760,000 | 213,947,000 | 18,545,000 | 931,803 | 244,183,803 | 6,740,284 | 106,899,776 | 3,634,768 | 361,458,631 |
| Total, 1921–1930, inclusive | 94,883,000 | 1,824,607,000 | 258,371,000 | 5,872,842 | 2,183,733,842 | 2,424,148,241 | 1,346,031,561 | 49,507,923 | 6,003,421,567 |
| 1931 | 5,324,214 | 209,127,223 | 7,159,067 | 837,667 | 222,448,171 | [1] *232,690,366* | 66,093,867 | 3,188,262 | 59,039,934 |
| 1932 | 4,588,353 | 189,872,051 | 14,651,019 | 603,597 | 209,715,020 | [1] *221,760,229* | 42,231,597 | 1,958,556 | 32,144,944 |
| 1933 | 3,710,731 | 180,915,349 | 15,290,471 | [1] *42,203* | 199,874,348 | [1] *50,079,651* | 55,088,660 | 7,296,331 | 212,179,688 |
| 1934 | 3,337,575 | 183,950,656 | 5,098,405 | [1] *891,652* | 191,494,984 | [1] *125,968,117* | 86,923,461 | 1,378,217 | 153,828,545 |
| 1935 | 3,332,598 | 191,292,301 | 1,904,919 | 274,641 | 196,804,459 | [1] *32,995,804* | 68,897,031 | 2,335,912 | 235,011,598 |
| 1936 | 3,593,060 | 189,908,421 | 2,731,508 | 247,673 | 196,480,628 | 133,448,050 | 27,730,272 | 3,587,745 | 361,246,695 |
| 1937 | 5,236,338 | 191,798,302 | 2,422,908 | 2,565,223 | 202,022,771 | 53,792,683 | 91,567,894 | 1,548,430 | 348,931,778 |
| Total, 1931–1937, inclusive | 29,122,835 | 1,336,864,303 | 49,258,297 | 3,594,946 | 1,418,840,381 | [1] *476,253,434* | 438,532,782 | 21,293,453 | 1,402,413,182 |
| Grand total, 1921–1937, inclusive | 124,005,835 | 3,161,471,303 | 307,629,297 | 9,467,788 | 3,602,574,223 | 1,947,894,807 | 1,784,564,343 | 70,801,376 | 7,405,834,749 |

[1] Decrease.

Column 7=Net income, plus increase or less decrease, to account no. 762, "Interest matured unpaid," less all dividend appropriations, excluding stock dividends.
Column 8=Credits to accounts 603, 604, and 607.
Column 9=Credits to account 606.
Column 10=Sum of columns 6, 7, 8, and 9.

EXHIBIT No. 560

SCHEDULE B.—*Funds secured for capital purposes from the sale of stock, all classes of steam railway companies*

[1921–1937]

| Year | Stock outstanding at end of year | | | Held by other railway companies | Amount held by other than railway holders | Change over previous year |
|---|---|---|---|---|---|---|
| | Common | Preferred | Total | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1920 | | | | | $6,706,530,562 | |
| 1921 | $7,275,000,000 | $1,801,000,000 | $9,076,000,000 | $2,402,214,133 | $6,673,423,777 | [1] *$33,106,785* |
| 1922 | 7,307,000,000 | 1,834,000,000 | 9,141,000,000 | 2,389,615,047 | 6,751,349,854 | 77,926,077 |
| 1923 | 7,398,000,000 | 1,852,000,000 | 9,250,000,000 | 2,402,472,927 | 6,847,048,512 | 95,698,658 |
| 1924 | 7,539,000,000 | 1,935,000,000 | 9,474,000,000 | 2,668,558,693 | 6,805,830,355 | [1] *41,218,157* |
| 1925 | 7,602,000,000 | 1,937,000,000 | 9,539,000,000 | 2,654,096,323 | 6,885,437,186 | 79,606,831 |
| 1926 | 7,560,000,000 | 1,925,000,000 | 9,485,000,000 | 2,645,338,306 | 6,830,464,432 | [1] *54,972,754* |
| 1927 | 7,683,000,000 | 1,980,000,000 | 9,663,000,000 | 2,906,729,085 | 6,756,046,601 | [1] *74,417,831* |
| 1928 | 7,809,000,000 | 2,034,000,000 | 9,843,000,000 | 2,759,264,320 | 7,084,045,045 | 327,998,444 |
| 1929 | 7,853,000,000 | 2,065,000,000 | 9,918,000,000 | 2,705,158,386 | 7,212,586,295 | 128,541,250 |
| 1930 | 8,009,000,000 | 2,074,000,000 | 10,083,000,000 | 2,897,232,664 | 7,185,499,007 | [1] *27,087,288* |
| Total, 1921–1930, inclusive | | | | | | 478,968,445 |
| 1931 | 8,031,000,000 | 2,049,000,000 | 10,080,000,000 | 2,968,459,902 | 7,111,028,874 | [1] *74,470,133* |
| 1932 | 8,067,000,000 | 2,047,000,000 | 10,114,000,000 | 3,056,240,404 | 7,057,936,301 | [1] *53,092,573* |
| 1933 | 8,057,000,000 | 2,042,000,000 | 10,099,000,000 | 2,923,845,375 | 7,174,773,595 | 116,837,294 |
| 1934 | 7,994,000,000 | 2,044,000,000 | 10,038,000,000 | 2,999,038,239 | 7,038,963,269 | [1] *135,810,326* |
| 1935 | 7,987,000,000 | 2,036,000,000 | 10,023,000,000 | 3,021,590,045 | 7,001,705,892 | [1] *37,257,377* |
| 1936 | 7,993,000,000 | 2,036,000,000 | 10,029,000,000 | 2,933,093,447 | 7,095,195,659 | 93,489,767 |
| 1937 | 8,064,000,000 | 2,050,000,000 | 10,114,000,000 | 3,045,210,344 | 7,068,862,752 | [1] *26,332,907* |
| Total, 1931–1937, inclusive | | | | | | [1] *116,636,255* |
| Grand total, 1921–1937, inclusive | | | | | | 362,332,190 |

[1] Decrease.

Data compiled from statement No. 53 Statistics of Railways in the United States.

SCHEDULE C.—*Funds secured for capital purposes through the sale of funded debt, all classes of steam railway companies* [1]

(1921–1937)

| Year | Funded debt unmatured | Less amount held by other railway companies | Funded debt unmatured held by holders other than railways (2–3) | Plus [2] | | Total (4+5+6) | Change over previous years |
|---|---|---|---|---|---|---|---|
| | | | | Funded debt matured unpaid | Receiver's certificates | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1921 | $13,216,000,000 | $2,806,545,666 | $10,409,454,334 | | $9,270,872 | $10,418,725,206 | $106,256,834 |
| 1922 | 13,149,000,000 | 2,620,759,969 | 10,528,240,031 | | 5,547,029 | 10,533,787,060 | 115,061,854 |
| 1923 | 13,589,000,000 | 2,625,872,150 | 10,963,127,850 | | 9,186,469 | 10,972,314,319 | 438,527,259 |
| 1924 | 14,162,000,000 | 2,766,027,829 | 11,395,972,171 | | 5,890,700 | 11,401,862,871 | 429,548,552 |
| 1925 | 14,105,000,000 | 2,799,614,420 | 11,305,385,580 | | 7,128,400 | 11,312,513,980 | [3] *89,348,891* |
| 1926 | 14,192,000,000 | 2,788,347,014 | 11,403,652,986 | | 7,068,400 | 11,410,721,386 | 98,207,406 |
| 1927 | 13,951,000,000 | 2,570,905,328 | 11,380,094,672 | | 4,069,510 | 11,384,164,182 | [3] *26,557,204* |
| 1928 | 13,904,000,000 | 2,477,425,137 | 11,426,574,863 | | 7,687,192 | 11,434,262,055 | 50,097,873 |
| 1929 | 14,065,000,000 | 2,597,798,777 | 11,467,201,223 | $67,133,763 | 9,198,192 | 11,543,533,178 | 109,271,123 |
| 1930 | 14,248,000,000 | 2,368,633,651 | 11,879,366,349 | 78,072,019 | 5,555,184 | 11,962,993,552 | 419,460,374 |
| Total, 1921–1930, inclusive | | | | | | | 1,650,525,180 |
| 1931 | 14,264,000,000 | 2,433,864,661 | 11,830,135,339 | 90,985,677 | 11,482,140 | 11,932,603,156 | [3] *80,390,396* |
| 1932 | 14,723,000,000 | 2,887,194,410 | 11,835,805,590 | 89,625,696 | 40,792,833 | 11,966,224,119 | 33,620,963 |
| 1933 | 14,624,000,000 | 2,967,803,912 | 11,656,196,088 | 135,530,108 | 42,583,544 | 11,834,309,740 | [3] *131,914,379* |
| 1934 | 14,532,000,000 | 2,918,163,785 | 11,613,836,215 | 321,329,122 | 44,700,954 | 11,979,866,291 | 145,556,551 |
| 1935 | 14,224,000,000 | 2,882,981,191 | 11,341,018,809 | 452,292,136 | 52,081,047 | 11,845,539,992 | [3] *134,474,299* |
| 1936 | 13,974,000,000 | 2,733,571,833 | 11,240,428,167 | 574,550,250 | 65,229,578 | 11,880,207,995 | 34,816,003 |
| 1937 | 14,009,000,000 | 2,758,624,019 | 11,250,375,981 | 572,014,600 | 65,421,414 | 11,887,811,995 | 7,604,000 |
| Total, 1931–1937, inclusive | | | | | | | [3] *75,181,557* |
| Grand total, 1921–1937, inclusive | | | | | | | 1,575,343,623 |

[1] Data compiled from statements Nos. 21, 42, 43 and 53, Statistics of Railways in the United States.
[2] Class I and their lessor companies only.
[3] Decrease.

## EXHIBIT No. 562

SCHEDULE D.—*Funds secured for capital purposes from the sale of securities, all classes of steam railway companies*

(1921–1937)

| Years (1) | From stock (2) | From funded debt (3) | Total (4) |
|---|---|---|---|
| 1921 | [1] *$33,106,785* | $106,256,834 | $73,150,049 |
| 1922 | 77,726,077 | 115,061,854 | 192,987,931 |
| 1923 | 95,698,658 | 438,527,259 | 534,225,917 |
| 1924 | [1] *41,218,157* | 429,548,552 | 388,330,395 |
| 1925 | 79,606,831 | [1] *893,348,891* | [1] *9,742,060* |
| 1926 | [1] *54,972,764* | 98,207,406 | 43,234,652 |
| 1927 | [1] *74,417,831* | [1] *26,557,204* | [1] *100,975,035* |
| 1928 | 327,998,444 | 50,097,873 | 378,096,317 |
| 1929 | 128,541,250 | 109,271,123 | 237,812,373 |
| 1930 | [1] *27,087,288* | 419,460,374 | 392,373,086 |
| Total, 1921–1930, inclusive | 478,968,445 | 1,650,525,180 | 2,129,493,625 |
| 1931 | [1] *74,479,133* | [1] *30,390,396* | [1] *104,869,529* |
| 1932 | [1] *53,092,573* | 33,620,963 | [1] *19,471,610* |
| 1933 | 116,837,294 | [1] *131,914,379* | [1] *15,077,085* |
| 1934 | [1] *135,810,326* | 145,556,551 | 9,746,225 |
| 1935 | [1] *37,257,377* | [1] *134,474,299* | [1] *171,731,676* |
| 1936 | 93,489,767 | 34,816,003 | 128,305,770 |
| 1937 | [1] *26,332,907* | 7,604,000 | [1] *18,728,907* |
| Total, 1931–1937, inclusive | [1] *116,636,255* | [1] *75,181,557* | [1] *191,817,812* |
| Grand total, 1921–1937, inclusive | 362,332,190 | 1,575,343,623 | 1,937,675,813 |

Column 2=Columns 7, schedule B.
Column 3=Column 8, schedule C.

[1] Decrease.

## EXHIBIT No. 563

SCHEDULE E.—*Summary of Funds Available for Capital Purposes*

(1921–1937)

| Years | From income [1] | | From decreases in working capital [1] | | From securities [2] | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Amount | Percent | Amount | Percent | Amount | Percent | Amount | Percent |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1921 | $451,745,491 | 68.69 | $132,726,286 | 20.18 | $73,150,049 | 11.13 | $657,621,826 | 100.00 |
| 1922 | 462,110,683 | 70.54 | ---------- | ------ | 192,987,931 | 29.46 | 655,098,614 | 100.00 |
| 1923 | 595,581,409 | 52.72 | ---------- | ------ | 534,225,917 | 47.28 | 1,129,807,326 | 100.00 |
| 1924 | 552,634,865 | 58.73 | ---------- | ------ | 388,330,395 | 41.27 | 940,965,260 | 100.00 |
| 1925 | 701,822,934 | 93.69 | 56,993,632 | 7.61 | [3] *9,742,060* | [3] *1.30* | 749,074,506 | 100.00 |
| 1926 | 743,471,800 | 87.23 | 65,612,612 | 7.70 | 43,234,652 | 5.07 | 852,319,064 | 100.00 |
| 1927 | 544,550,210 | 99.17 | 105,522,735 | 19.22 | [2] *100,975,035* | [3] *18.39* | 549,097,910 | 100.00 |
| 1928 | 767,621,848 | 67.00 | ---------- | ------ | 378,096,317 | 33.00 | 1,145,718,165 | 100.00 |
| 1929 | 822,423,696 | 70.42 | 107,622,590 | 9.22 | 237,812,373 | 20.36 | 1,167,858,659 | 100.00 |
| 1930 | 361,458,631 | 43.01 | 86,619,391 | 10.31 | 392,373,086 | 46.68 | 840,451,108 | 100.00 |
| Total 1921–1930, inclusive | 600,342,567 | 69.10 | 555,697,246 | 6.39 | 2,129,493,625 | 24.51 | 8,688,012,438 | 100.00 |
| 1931 | 59,039,934 | 28.34 | 254,138,451 | 122.00 | [3] *104,860,529* | [3] *50.34* | 208,317,856 | 100.00 |
| 1932 | 32,144,944 | 31.71 | 88,700,529 | 87.50 | [3] *19,471,610* | [3] *19.21* | 101,373,863 | 100.00 |
| 1933 | 212,179,688 | 93.97 | 28,698,325 | 12.71 | [3] *15,077,085* | [3] *6.68* | 225,800,928 | 100.00 |
| 1934 | 153,828,545 | 94.04 | ---------- | ------ | 9,746,225 | 5.96 | 163,574,770 | 100.00 |
| 1935 | 235,041,598 | 371.26 | ---------- | ------ | [3] *171,731,676* | [3] *271.26* | 63,309,922 | 100.00 |
| 1936 | 361,246,695 | 73.79 | ---------- | ------ | 128,305,770 | 26.21 | 489,552,465 | 100.00 |
| 1937 | 348,931,778 | 93.48 | 43,083,041 | 11.54 | [3] *18,728,907* | [3] *5.02* | 373,285,912 | 100.00 |
| Total, 1931–1937, inclusive | 1,402,413,182 | 86.29 | 414,620,346 | 25.51 | [3] *191,817,812* | [3] *11.80* | 1,625,215,716 | 100.00 |
| Grand total 1921–1937, inclusive | 7,405,834,749 | 71.81 | 969,717,592 | 9.40 | 1,937,675,813 | 18.79 | 10,313,228,154 | 100.00 |

Column 2=Column 10 of schedule A.
Column 4=Decrease during the year. Current assets less sum of current liabilities and tax liabilities after deducting "Interest matured unpaid" and "Funded debt matured unpaid."
Column 6=Column 4 of schedule D.

[1] Class I and their lessor companies. [2] All classes of steam railway companies. [3] Decrease.

EXHIBIT No. 564

SCHEDULE G.—*Expenditures for maintenance, class I railways (excluding depreciation and retirements)*

(1921–1937)

| Year (1) | Road (2) | Equipment (3) | Total (4) |
|---|---|---|---|
| 1921 | $749,618,690 | $1,102,307,071 | $1,851,925,761 |
| 1922 | 721,564,534 | 1,089,809,159 | 1,811,373,693 |
| 1923 | 805,322,760 | 1,268,451,463 | 2,073,774,223 |
| 1924 | 783,932,023 | 1,060,702,450 | 1,844,634,473 |
| 1925 | 806,866,013 | 1,045,487,041 | 1,852,353,054 |
| 1926 | 856,429,553 | 1,061,983,912 | 1,918,413,465 |
| 1927 | 856,099,534 | 992,349,226 | 1,848,448,760 |
| 1928 | 828,061,129 | 935,067,440 | 1,763,128,569 |
| 1929 | 844,529,574 | 954,362,304 | 1,798,891,878 |
| 1930 | 694,710,817 | 786,772,926 | 1,481,483,743 |
| Total, 1921–1930, inclusive | 7,947,134,627 | 10,297,292,992 | 18,244,427,619 |
| 1931 | 525,288,676 | 600,667,201 | 1,125,955,877 |
| 1932 | 346,590,688 | 414,417,703 | 761,008,391 |
| 1933 | 318,575,466 | 402,503,308 | 721,078,774 |
| 1934 | 361,962,040 | 448,856,555 | 810,818,595 |
| 1935 | 390,634,662 | 488,689,652 | 879,324,314 |
| 1936 | 451,217,140 | 590,359,657 | 1,041,576,797 |
| 1937 | 490,357,575 | 632,487,615 | 1,122,845,190 |
| Total, 1931–1937, inclusive | 2,884,626,247 | 3,577,981,691 | 6,462,607,938 |
| Grand total, 1921–1937, inclusive | 10,831,760,874 | 13,875,274,683 | 24,707,035,557 |

Data compiled from Statement No. 37.

EXHIBIT No. 565

SCHEDULE F.—*Capital requirements, class I railways and their lessor companies*

[1921–1937]

| Year | Investment in Transportation Property | | | Investment in miscellaneous physical property | Sinking funds and deposits in lieu of mortgaged property sold | Investments in Securities of Affiliated and Subsidiary Cos. | Other investments | Increases in Working Capital | Total (Excluding Column 7) |
|---|---|---|---|---|---|---|---|---|---|
| | Additions and Betterments | New Lines and Extensions | Total | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1921 | [1] $548,541,120 | [1] $16,466,879 | [1] $565,007,999 | [2] *$97,705,283* | [2] *$19,356,209* | $88,912,366 | $109,318,083 | | $557,264,590 |
| 1922 | [1] 484,510,683 | [1] 20,852,551 | [1] 505,363,234 | 1,525,340 | 855,879 | 92,148,763 | 131,925,343 | $15,013,183 | 654,682,979 |
| 1923 | [1] 1,050,663,001 | [1] 25,814,176 | [1] 1,076,477,177 | 3,605,527 | 20,726,694 | 212,123,667 | [2] *93,558,753* | 175,802,784 | 1,183,053,429 |
| 1924 | [1] 912,464,622 | [1] 25,377,703 | [1] 937,842,325 | 11,405,816 | [2] *15,259,806* | 175,020,706 | [2] *18,955,465* | 95,275,273 | 1,010,308,143 |
| 1925 | [1] 762,078,634 | [1] 40,915,414 | [1] 802,994,048 | 4,511,585 | 4,461,851 | 56,392,830 | 61,361,105 | | 873,328,589 |
| 1926 | [1] 847,930,771 | [1] 37,216,820 | [1] 885,147,591 | 847,449 | [2] *460,095* | 32,257,637 | 49,403,340 | | 934,938,285 |
| 1927 | [1] 777,555,557 | [1] 36,704,567 | [1] 814,260,124 | 785,441 | [2] *2,844,085* | 73,205,369 | [2] *1,904,218* | | 810,297,262 |
| 1928 | [1] 676,733,311 | [1] 51,368,645 | [1] 728,101,956 | 14,069,700 | 2,687,395 | 112,364,102 | [2] *65,355,407* | 228,214,940 | 902,718,584 |
| 1929 | 829,422,609 | 34,792,771 | 864,215,380 | 6,895,010 | [2] *123,752* | 392,226,188 | 44,983,174 | | 915,969,812 |
| 1930 | 801,213,940 | 31,907,722 | 833,121,662 | 4,101,358 | [2] *5,479,461* | 44,226,365 | [2] *25,077,900* | | 806,665,659 |
| Total 1921–1930, inclusive | 7,691,114,248 | 321,417,248 | 8,012,531,496 | [2] *49,958,057* | [2] *14,791,589* | 1,283,877,993 | 192,139,302 | 514,306,180 | 8,654,227,332 |
| 1931 | 311,799,101 | 36,043,070 | 347,842,171 | [2] *7,163,388* | [2] *15,171,457* | 99,622,827 | [2] *43,058,135* | | 282,449,191 |
| 1932 | 162,360,230 | 6,759,833 | 169,120,063 | [2] *3,477,177* | 640,984 | 171,419,191 | [2] *41,536,689* | | 124,747,181 |
| 1933 | 105,547,145 | 6,470,158 | 112,017,303 | 2,225,612 | 825,801 | 56,806,978 | [2] *19,904,866* | | 95,163,850 |
| 1934 | 179,282,289 | [2] *7,657,122* | 171,625,167 | 5,675,251 | 8,187,574 | [2] *355,055,455* | 60,733,302 | 40,821,322 | 287,042,616 |
| 1935 | 190,051,138 | 2,045,149 | 192,096,287 | 17,451,319 | 2,759,279 | [2] *127,497,474* | [2] *70,136,914* | 15,711,770 | 157,881,741 |
| 1936 | 302,698,164 | 11,637,208 | 314,335,372 | 20,388,792 | 9,194,709 | [2] *69,856,878* | [2] *57,771,911* | 143,024,212 | 429,171,174 |
| 1937 | 537,390,444 | 3,535,188 | 540,925,632 | 27,774,875 | [2] *13,044,811* | [2] *245,601,032* | [2] *16,728,355* | | 538,927,341 |
| Total 1931–1937, inclusive | 1,789,128,511 | 58,833,484 | 1,847,961,995 | 62,875,284 | [2] *6,607,921* | [2] *470,161,843* | [2] *188,403,568* | 199,557,304 | 1,915,383,094 |
| Grand total 1921–1937, inclusive | 9,480,242,759 | 380,250,732 | 9,860,493,491 | 12,917,227 | [2] *21,399,510* | 813,716,150 | 3,735,734 | 713,863,484 | 10,569,610,426 |

Columns 2, 3, and 4—Compiled from Statement No. 46, from Statistics of Railways in the United States.
Column 5—Change in account no. 705.
Column 6—Change in accounts nos. 703 and 704.
Column 7—Change in account no. 706.
Column 8—Change in account no. 707.
Column 9—Increase during year. Current assets less sum of current liabilities and tax liabilities after deducting "Interest matured unpaid," and "Funded debt matured unpaid."

[1] Also includes Class II Roads and their Lessor Companies.

[2] Decrease.

# EXHIBIT No. 566

[Source: Prepared by the Bureau of Statistics of the Interstate Commerce Commission for the S. E. C. Monopoly Study in accordance to formulae supplied by the Staff of the Monopoly Study and J. W. Barriger III.]

## SCHEDULE H.—*Sources and application of railway capital*

(1921–1937)

| Year | Sources | | | | | | | Application | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From income and the liquidation of property [1] | | From securities [2] | | Reduction of working capital [2] | | Total | Road and equipment [1] | | Increase in working capital [1] | | Other investments [1] | | Total |
| | Amount | Percent | Amount | Percent | Amount | Percent | | Amount | Percent | Amount | Percent | Amount | Percent | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
| 1921 | $451,745,491 | 68.69 | $73,150,049 | 11.13 | $132,726,286 | 20.18 | $657,621,826 | [3] $565,007,999 | 83.79 | | | $109,318,083 | 16.21 | $674,326,082 |
| 1922 | 462,110,683 | 70.54 | 192,987,931 | 29.46 | | | 655,098,614 | [3] 505,363,234 | 77.47 | $15,013,183 | 2.30 | 131,925,343 | 20.23 | 652,301,760 |
| 1923 | 595,581,409 | 52.72 | 534,225,917 | 47.28 | | | 1,129,807,326 | [3] 1,076,477,177 | 92.90 | 175,802,784 | 15.17 | [4] 93,558,753 | [4] 8.07 | 1,158,721,208 |
| 1924 | 552,634,865 | 58.73 | 388,330,395 | 41.27 | | | 940,965,260 | [3] 937,842,325 | 92.48 | 95,275,273 | 9.39 | [4] 18,955,465 | [4] 1.87 | 1,014,162,133 |
| 1925 | 701,822,934 | 93.69 | [4] 9,742,060 | [4] 1.30 | 56,993,632 | 7.61 | 749,074,506 | [3] 802,994,048 | 92.90 | | | 61,361,105 | 7.10 | 864,355,153 |
| 1926 | 743,471,800 | 87.23 | 43,234,652 | 5.07 | 65,612,612 | 7.70 | 852,319,064 | [3] 885,147,591 | 94.71 | | | 49,403,340 | 5.29 | 934,550,931 |
| 1927 | 544,550,210 | 99.17 | [4] 100,975,035 | [4] 18.39 | 105,522,735 | 19.22 | 549,097,910 | [3] 814,260,124 | 100.23 | | | [4] 1,904,218 | [4] .23 | 812,355,906 |
| 1928 | 767,621,848 | 67.00 | 378,096,317 | 33.00 | | | 1,145,718,165 | [3] 728,101,956 | 81.72 | 228,214,940 | 25.61 | [4] 65,355,407 | [4] 7.33 | 890,961,489 |
| 1929 | 822,423,696 | 70.42 | 237,812,373 | 20.36 | 107,622,590 | 9.22 | 1,167,858,659 | 864,215,380 | 95.05 | | | 44,983,174 | 4.95 | 909,198,554 |
| 1930 | 361,458,631 | 43.01 | 392,373,086 | 46.68 | 86,619,391 | 10.31 | 840,451,108 | 833,121,662 | 103.10 | | | [4] 25,077,900 | [4] 3.10 | 808,043,762 |
| Total 1921–1930, inclusive | 6,003,421,567 | 69.10 | 2,129,493,625 | 24.51 | 555,097,246 | 6.39 | 8,688,012,438 | 8,012,531,496 | 91.90 | 514,306,180 | 5.90 | 192,139,302 | 2.20 | 8,718,976,978 |
| 1931 | 59,039,934 | 28.34 | [4] 104,860,529 | [4] 50.34 | 254,138,451 | 122.00 | 208,317,856 | 347,842,171 | 114.13 | | | [4] 43,058,135 | [4] 14.13 | 304,784,036 |
| 1932 | 32,144,944 | 31.71 | [4] 19,471,610 | [4] 19.21 | 88,700,529 | 87.50 | 101,373,863 | 169,120,063 | 132.56 | | | [4] 41,536,689 | [4] 32.56 | 127,583,374 |
| 1933 | 212,179,688 | 93.97 | [4] 15,077,085 | [4] 6.68 | 28,698,325 | 12.71 | 225,800,928 | 112,017,303 | 121.61 | | | [4] 19,904,866 | [4] 21.61 | 92,112,437 |
| 1934 | 153,828,545 | 94.04 | 9,746,225 | 5.96 | | | 163,574,770 | 171,625,167 | 62.83 | 40,821,322 | 14.94 | 60,733,302 | [4] 22.23 | 273,179,791 |
| 1935 | 235,041,598 | 371.26 | [4] 171,173,676 | [4] 271.26 | | | 63,309,922 | 192,096,287 | 139.53 | 15,711,770 | 11.41 | [4] 70,136,914 | [4] 50.94 | 137,671,143 |
| 1936 | 361,246,695 | 73.79 | 128,305,770 | 26.21 | | | 489,552,465 | 314,335,372 | 78.67 | 143,024,212 | 35.79 | [4] 57,771,911 | [4] 14.46 | 399,587,673 |
| 1937 | 348,931,778 | 93.48 | [4] 18,728,907 | [4] 5.02 | 43,083,041 | 11.54 | 373,285,912 | 540,925,632 | 103.19 | | | [4] 16,728,355 | [4] 3.19 | 524,197,277 |
| Total 1931–1937, inclusive | 1,402,413,182 | 86.29 | [4] 191,817,812 | [4] 11.80 | 414,620,346 | 25.51 | 1,625,215,716 | 1,847,961,995 | 99.40 | 199,557,304 | 10.73 | [4] 188,403,568 | [4] 10.13 | 1,859,115,731 |
| Grand total 1921–1937, including | 7,405,834,749 | 71.81 | 1,937,675,813 | 18.79 | 969,717,592 | 9.40 | 10,313,228,154 | 9,860,493,491 | 93.22 | 713,863,484 | 6.75 | 3,735,734 | .03 | 10,578,092,709 |

Column 2=Column 2 of Schedule E.
Column 4=Column 6 of Schedule E.
Column 6=Column 4 of Schedule E.
Column 9=Column 4 of Schedule F.
Column 11=Column 9 of Schedule F.
Column 13=Column 8 of Schedule F.

[1] Class I and their lessor companies. [2] All classes of steam railway companies. [3] Also includes Class II roads and their lessor companies. [4] Decrease.

## EXHIBIT No. 567

SCHEDULE H—SUPPLEMENT.—*Changes in investment in road and equipment of class I roads and their lessor companies—years 1921 to 1937, inclusive*

| Year ended— | Investment during the year | Credits for property retired | Total investment during the year | Changes on account of roads sold, merged, consolidated, etc. | Adjustments | Net increase during the year |
|---|---|---|---|---|---|---|
| Dec. 31, 1921 [1] | $565,007,999 | $106,904,812 | $458,103,187 | [2] *89,317,448* | $44,423,239 | $493,208,978 |
| Dec. 31, 1922 [1] | 505,363,234 | 163,226,053 | 342,137,181 | [2] *48,631,503* | [2] *42,747,173* | 250,758,505 |
| Dec. 31, 1923 [1] | 1,076,477,177 | 269,008,463 | 807,468,714 | [2] *22,161,468* | 6,161,436 | 791,468,682 |
| Dec. 31, 1924 [1] | 937,842,325 | 214,326,519 | 723,515,806 | 101,243,138 | [2] *1,926,687* | 822,832,257 |
| Dec. 31, 1925 [1] | 802,994,048 | 223,032,594 | 579,961,454 | [2] *17,044,077* | 584,339 | 563,501,716 |
| Dec. 31, 1926 [1] | 885,147,591 | 219,048,298 | 666,099,293 | [2] *3,867,775* | [2] *12,376,985* | 649,854,533 |
| Dec. 31, 1927 [1] | 814,260,124 | 226,672,055 | 587,588,069 | [2] *19,046,903* | 1,584,848 | 570,126,014 |
| Dec. 31, 1928 [1] | 728,101,956 | 259,915,821 | 468,186,135 | [2] *65,096,157* | [2] *31,797,563* | 371,292,415 |
| Dec. 31, 1929 | 864,215,380 | 325,931,122 | 538,284,258 | 17,140,800 | [2] *3,185,635* | 552,239,423 |
| Dec. 31, 1930 | 833,121,662 | 240,656,949 | 592,464,713 | 33,203,983 | [2] *35,463,715* | 590,204,981 |
| Total, 1921–1930, inclusive | 8,012,531,496 | 2,248,722,686 | 5,763,808,810 | [2] *33,577,410* | [2] *74,743,896* | 5,655,487,504 |
| Dec. 31, 1931 | 347,842,171 | 211,145,172 | 136,696,999 | [2] *81,020,728* | [2] *6,533,552* | 49,142,719 |
| Dec. 31, 1932 | 169,120,063 | 194,714,083 | [2] *25,594,020* | [2] *2,150,089* | 14,722,721 | [2] *13,021,388* |
| Dec. 31, 1933 | 112,017,303 | 273,369,222 | [2] *161,351,919* | 2,861,452 | | [2] *158,490,467* |
| Dec. 31, 1934 | 171,625,167 | 345,372,295 | [2] *173,747,128* | [2] *6,199,527* | | [2] *179,946,655* |
| Dec. 31, 1935 | 192,096,287 | 334,783,432 | [2] *142,687,145* | 13,615,488 | | [2] *129,071,657* |
| Dec. 31, 1936 | 314,335,372 | 354,296,288 | [2] *39,960,916* | [2] *972,378* | | [2] *40,933,295* |
| Dec. 31, 1937 | 540,925,632 | 328,058,176 | 212,867,456 | 1,736,912 | | 214,604,368 |
| Total, 1931 to 1937, inclusive | 1,847,961,995 | 2,041,738,668 | [2] *193,776,673* | [2] *72,128,870* | 8,189,169 | [2] *257,716,374* |
| Grand total, 1921 to 1937, inclusive | 9,860,493,491 | 4,290,461,354 | 5,570,032,137 | [2] *105,706,280* | [2] *66,554,727* | 5,397,771,130 |

[1] Also includes class II roads and their Lessor Companies.
[2] Credit.

## EXHIBIT No. 568

[Source: Prepared by the United States Steel Corp.]

*United States Steel Corporation and subsidiaries consolidated, sources and disposition of funds, years 1921–1938, inclusive*

SOURCES

| | | % of Total |
|---|---|---|
| Profits Retained | $191,890,003 | 12.0 |
| (Profits before dividends $1,102,174,686; dividends $910,284,683.) | | |
| Net Tax Refunds | 50,093,864 | 3.1 |
| Allowances for Depreciation, Depletion, etc | 937,792,891 | 58.4 |
| Net Reduction of Working Capital during period (including sundry other sources) | 186,300,142 | 11.6 |
| Common Stock Issued | 239,951,721 | 14.9 |
| (For cash, $148,381,386; for property, $50,519,537; for current assets, $41,050,798.) | | |
| Total | 1,606,028,621 | 100.0 |

DISPOSITION

| | | |
|---|---|---|
| Gross Expenditures for Plant and Equipment | $1,222,252,649 | 76.1 |
| Property Acquired for Common Stock | 50,519,537 | 3.1 |
| Net Funded Debt Retired | 333,252,435 | 20.8 |
| (Bonds retired, $520,234,655; Bonds issued, $186,982,220.) | | |
| Total | 1,606,028,621 | 100.0 |

*United States Steel Corporation—Finished products for sale, per cent of production to capacity*

[Source: Submitted by United States Steel Corp.]

| Month | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 83.7 | 85.8 | *46.4 | 91.5 | 78.5 | 83.6 | 93.3 | 87.2 | 85.2 | 87.8 | 75.8 | 47.1 | 24.1 | 16.4 | 23.9 | 34.9 | 46.1 | 75.2 | 31.7 |
| February | 92.7 | 72.4 | 56.7 | 91.2 | 86.5 | 87.3 | 94.8 | 90.1 | 89.7 | 94.7 | 83.6 | 50.0 | 24.1 | 17.6 | 28.8 | 38.9 | *45.1 | 82.4 | 30.5 |
| March | 98.4 | 53.8 | 67.8 | 95.0 | 91.8 | 90.5 | 94.8 | 91.9 | 85.5 | 94.9 | 79.5 | 54.1 | 21.0 | *13.6 | 34.0 | 38.7 | 49.5 | 90.2 | 34.7 |
| April | *78.3 | 40.5 | 75.3 | 93.8 | 81.7 | 81.7 | 92.2 | 87.4 | 86.6 | 99.1 | 79.0 | 50.4 | 20.7 | 20.4 | 42.8 | 37.7 | 61.6 | 90.9 | 32.5 |
| May | 80.1 | 38.0 | 78.1 | 95.0 | 65.2 | 76.6 | 89.9 | 85.4 | 83.4 | 100.4 | 73.2 | 43.0 | 19.5 | 25.7 | 48.4 | 37.6 | 59.8 | 86.1 | 29.9 |
| June | 80.2 | 34.5 | 78.5 | 88.6 | 60.1 | 74.2 | 84.6 | 79.1 | *79.0 | 96.0 | 68.4 | 37.7 | 17.2 | 36.1 | 52.5 | *33.5 | 60.8 | 88.1 | 31.8 |
| July | 78.7 | *29.0 | 72.4 | 84.7 | *50.0 | *66.8 | *82.7 | 74.3 | 80.4 | 94.0 | 61.9 | 37.1 | 15.1 | 46.5 | 26.1 | 34.5 | 62.0 | 76.0 | *27.6 |
| August | 88.1 | 33.3 | 69.6 | 89.1 | 57.0 | 72.5 | 85.1 | 78.1 | 82.2 | 90.3 | 60.8 | 30.8 | *13.6 | 40.5 | 23.6 | 37.2 | 64.1 | 74.0 | 36.8 |
| September | 93.5 | 36.6 | 70.4 | 86.8 | 59.7 | 73.5 | 85.4 | 73.1 | 84.0 | 87.6 | 61.1 | 29.6 | 15.9 | 35.8 | 22.4 | 41.5 | 64.8 | 70.8 | 38.2 |
| October | 97.9 | 50.5 | 76.8 | 91.0 | 65.1 | 76.6 | 85.1 | 65.8 | 85.7 | 85.0 | 53.6 | 27.2 | 16.5 | 33.1 | *19.1 | 42.1 | 64.5 | 51.6 | 43.2 |
| November | 96.4 | 49.0 | 79.8 | 80.2 | 58.1 | 79.7 | 84.2 | *65.4 | 79.1 | 72.0 | 46.4 | 26.6 | 17.0 | 26.0 | 23.3 | 44.2 | 62.9 | 39.8 | 51.8 |
| December | 92.4 | 49.3 | 83.1 | *71.1 | 73.9 | 79.2 | 84.6 | 67.6 | 80.0 | *65.9 | *43.3 | *24.1 | 14.6 | 33.1 | 26.9 | 45.5 | 69.9 | *30.2 | 45.9 |
| Year | 88.3 | 47.5 | 71.3 | 88.3 | 69.7 | 78.4 | 88.0 | 78.8 | 83.4 | 89.2 | 65.6 | 38.0 | 18.3 | 28.7 | 31.2 | 38.8 | 59.3 | 71.2 | 36.2 |

*Lowest month of year.

| | Per Cent of Capacity Operated | |
|---|---|---|
| | On Basis of Actual Capacity Applicable in each year as per above table | On Basis of Actual Production each year but applied against 1937 Capacity |
| Average for— | | |
| 9 Leanest Years (under 70%) | 43.4 | 44.6 |
| 8 Best Years (over 70%) | 83.2 | 77.1 |
| 17 Years (1920 to 1936, inclusive) | 61.1 | 59.9 |

| | Per Cent of Capacity Operated | |
|---|---|---|
| | On Basis of Actual Capacity Applicable in each year as per above table | On Basis of Actual Production each year but applied against 1937 Capacity |
| Average for—Continued. | | |
| 9 Leanest Years (under 70%) | 43.4 | 44.6 |
| 9 Best Years (over 70%) | 81.8 | 76.4 |
| 18 Years (1920 to 1937, inclusive) | 61.7 | 60.5 |

"Exhibit No. 570" appears in text on p. 3653

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Exhibit No. 571

*Question 3*

## GENERAL MOTORS CORPORATION AND SUBSIDIARY COMPANIES—SUMMARY OF PRINCIPAL PRODUCTS CURRENTLY SOLD

### AUTOMOTIVE PRODUCTS

*Passenger Cars Manufactured in the United States*

*Chevrolet*—in two series: the Master "85" Six with 6 body types; the Master De Luxe Six with 7 body types.
*Pontiac*—in three series: the De Luxe 115 Six with 5 body types; the De Luxe 120 Six with 5 body types; and the De Luxe Eight with 5 body types.
*Oldsmobile*—in three series: the Six-60 with 4 body types; the Six-70 with 5 body types; and the Eight-80 with 5 body types.
*Buick*—in four series: the Special 40 with 6 body types: the Century 60 with 5 body types; the Roadmaster 80 with 5 body types; and the Limited 90 with 3 body types.
*La Salle 50 V-8*—with 5 body types.
*Cadillac*—in four series: the "61" V-8 with 4 body types; the Special "60" V-8 in one body type; the Fleetwood "75" V-8 with 14 body types; and the "90" V-16 with 12 body types.

*Passenger cars manufactured in Canada*

Chevrolet, Pontiac, Oldsmobile, and McLaughlin-Buick cars are manufactured in Canada by General Motors, of Canada, Ltd. (La Salle and Cadillac cars are sold in Canada through the Cadillac Motor Car Co. of Canada, Ltd.).
Note.—All of the above General Motors passenger cars are equipped with bodies manufactured by Fisher Body Division of General Motors Corporation.

*Passenger cars manufactured in overseas markets*

*Opel*—completely manufactured in Germany in five series: the Kadett Standard Four; the Kadett De Luxe Four; the Olympia Four; the Kapitan Six; and the Admiral Six.
*Vauxhall*—completely manufactured in the British Isles in four series: 10 H. P. Four; 12 H. P. Four; 14 H. P. Six; and 25 H. P. Six.
In addition, Chevrolet, Pontiac, Oldsmobile, Buick, La Salle, and Cadillac cars are sold in overseas markets through foreign subsidiaries of General Motors Corporation. Assembly operations are also carried on by certain of these foreign subsidiaries.

*Commercial vehicles manufactured in the United States*

*Chevrolet Commercial Cars and Trucks*—includes a line of ½-ton, ¾-ton and 1½-ton models with commercial bodies produced by Chevrolet Commercial Body Division.
*General Cabs, General Motors Trucks and Trailers, and Yellow Coaches*—manufactured by Yellow Truck & Coach Manufacturing Company (General Motors Truck and Coach Division), a subsidiary of General Motors Corporation.

*Commercial vehicles manufactured in Canada*

Chevrolet commercial cars and trucks, Maple Leaf trucks and General Motors trucks are manufactured in Canada by General Motors of Canada, Ltd.

*Commercial vehicles manufactured in overseas markets*

*Opel Commercial Cars and Blitz Trucks*—completely manufactured in Germany by Adam Opel A. G.
*Bedford Commercial Cars and Trucks*—completely manufactured in the British Isles by Vauxhall Motors Ltd.

In addition, Chevrolet commercial cars and trucks, General Motors trucks and Yellow coaches are sold in overseas markets through foreign subsidiaries of General Motors Corporation.

*Parts and accessories*

The essential parts of the automobile, including engines, transmissions, axles, and suspension parts, are made in the plants of the Car Divisions of General Motors Corporation, but certain important accessories and parts are manufactured in separate accessory divisions for the Car Divisions, and for sale to outside manufacturers, as follows:

Air Pressure Gauges
Air Cleaners
Ammeters
Batteries
Bearings, Ball
Bearings, Copper Lead
Bearings, Babbitt
Bearings, Roller
Bearings, Oil Impregnated Porous Metal and Rolled Bronze
Brake Equipment, Hydraulic—for G. M. cars
Brake Hose, Hydraulic
Bumper Guards
Cable Sets, Ignition
Cables, Battery
Carburetor Intake Silencers
Castings, Malleable Iron
Choke Controls, Automatic and Manual
Coils with Ignition Locks
Crankcase Breather Air Cleaners
Directional Signals
Drag Links
Drop Forgings
Fender Lamps
Fog Lamps
Gasoline Gauges
Gasoline Strainers
Generators, Electric
Gum Solvent Injectors and Fluid
Hardware accessories and interior trim—for automobile bodies and chassis, including handles, hinges, radiator emblems, radiator grilles, ventilators, window regulators, molding, ash receivers, seat adjustors, robe rails and bright metal trim
Head Lamps
Head Lamp Aiming and Testing Equipment
Heaters, Hot Water
Horn Buttons
Horns
Hub Caps
Ignition Systems
Indicators—for recording mileage
Instrument Panels
Locker Doors
Locking Devices
Motor Mountings, Rubber
Oil Bath Air Cleaners
Oil Filters
Oil Pressure Gauges
Oil Temperature Regulators
Pumps, Fuel and Vacuum, and Combination
Radiators
Radios, Automobile
Radio Antennae, Automobile
Radio Controls
Radio Spark Plugs
Radio Vibrators—for "B" Power Supply
Radio Wiring Assemblies
Reflex Units—for automobiles, truck and busses
Running Boards and Mats, Metal—Rubber
Shafts and Cables, Flexible
Shock Absorbers, Hydraulic
Shop Lights, Portable
Spark Advance Controls
Spark Plugs
Spark Plug Cleaning and Adjusting Equipment
Spark Plug Testers
Speedometers
Spring Eye Bushings
Springs, Coiled and Flat—for engine valves, clutches, etc.
Starters and Controls, Electric
Steering Gears
Steering Wheels
Switches
Tachometers
Tail Lamps
Thermo Gauges
Thermostats
Throttle Controls
Tie Rods
Universal Joints
Voltage Regulators
Weatherstrips and Windshield Strips, Rubber
Windshield Wipers, Mechanical
Wires and Cables
Wiring Assemblies
Wiring Harnesses

NON-AUTOMOTIVE PRODUCTS

*Refrigeration and kitchen equipment*

The following equipment is sold throughout the world under the trade name Frigidaire:

Electric refrigerators, refrigerator units and equipment for household and commercial use.
Electric ranges
Electric water heaters
Beverage and Water Coolers
Ice Cream Cabinets
Milk Cooling Equipment

*Air conditioning and heating equipment*

Air conditioning units (Frigidaire)
Attic ventilators
Automatic coal stokers for home use
Conversion oil burners (Delco-Heat)
Heating plants (Delco-Heat)
Oil or gas fired heaters (Delco-Heat)
Oil or gas fired conditionaires (Delco-Heat)

*Lighting equipment and other household appliances*

Electric fans
Electric light and power plants (Delco-Light)
Electric water pumps and systems
Vacuum cleaners

*Engines and locomotives*

Airplane engines—liquid cooled, v-type.
Diesel engines for commercial vehicles, marine and stationary use, and railroads.
Diesel locomotives for main line and switching service and Diesel power plants for streamlined trains.

*Miscellaneous*

Beverage Recording Indicators
Bicycle Coaster Brakes and Sundries
Cabinet Lids, Ice Cream
Cords, Flexible Electric
Die Castings; Die Cast Machines
Die Castings, Small Precision
Heat Exchangers and Radiators—for cooling gasoline engines, oil engines and electric generators
Ice Trays, Rubber and Metal
Lubricating Surface, Dry (Inlube)
Motors and Blowers, Small Electric
Motors, Electric—for industrial use
Motors, Electric—for refrigerators, meat slicers, pumps, washing machines, ironing machines, oil burners, and air conditioning equipment
Pistons—for Diesel engines
Power Transportation Units, Infinitely Variable—adapted to electric motor drives
Rubber Moulded Products, Hard and Soft
Rubber Cement
Springs, Coiled and Flat—for refrigeration unit mountings, door latches, etc.
Stampings

## EXHIBIT No. 572

*General Motors Corporation—Disposition of Funds Statement, Years 1921–1938, Inclusive*

[Data supplementing schedules supplied in answer to questions 7 and 8]

| Years | Total Funds Provided | | | | | | Total Funds provided |
|---|---|---|---|---|---|---|---|
| | Increase in Net Worth | | | Other Funds Provided | | | |
| | Net Profits Retained in the Business | Increase in Capital Account through Sale of Securities, and Suplus Adjustments | Total | Depreciation Charged to Current Income | Special Tools Charged to Current Income | Increase in Total Current Liabilities | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1921 | ($65,459,057) | $831,030 | ($64,628,027) | $6,750,675 | | ($33,148,905) | ($91,026,257) |
| 1922 | 34,889,791 | 3,597,137 | 38,486,928 | 13,584,789 | | (27,791,044) | 24,280,673 |
| 1923 | 30,408,129 | 1,990,078 | 32,398,207 | 15,055,703 | | 25,387,782 | 72,841,692 |
| 1924 | 13,027,619 | (10) | 13,027,609 | 16,078,549 | | (32,076,732) | (2,970,574) |
| 1925 | 36,909,544 | | 36,909,544 | 17,236,507 | | 61,968,234 | 116,114,285 |
| 1926 | 64,508,865 | 82,732,030 | 147,240,895 | 20,259,974 | | 35,290,389 | 202,791,258 |
| 1927 | 94,373,598 | 29,104,167 | 123,477,765 | 26,928,658 | | 15,023,551 | 165,429,974 |
| 1928 | 97,639,512 | | 97,639,512 | 30,515,441 | | 13,664,836 | 141,819,789 |
| 1929 | 79,891,705 | 19,209,973 | 99,101,678 | 35,217,071 | $29,388,082 | (55,347,820) | 108,359,011 |
| 1930 | 13,727,585 | (1,401,983) | 12,325,602 | 37,715,088 | 15,748,171 | (33,893,303) | 31,895,558 |
| 1931 | (42,998,793) | | (42,998,793) | 37,965,731 | 23,463,044 | 806,796 | 19,236,778 |
| 1932 | (63,034,738) | | (63,034,738) | 37,173,647 | 20,313,477 | (26,764,976) | (32,312,590) |
| 1933 | 20,208,476 | (9,478,864) | 10,729,612 | 30,149,825 | 15,085,107 | 18,361,031 | 74,325,575 |
| 1934 | 21,147,421 | | 21,147,421 | 32,616,832 | 20,268,484 | 14,015,793 | 88,048,530 |
| 1935 | 61,571,542 | | 61,571,542 | 35,361,006 | 23,721,499 | 54,868,385 | 175,522,432 |
| 1936 | 36,400,906 | | 36,400,906 | 38,785,681 | 22,373,599 | 29,233,009 | 126,793,195 |
| 1937 | 26,708,517 | | 26,708,517 | 43,014,913 | 40,200,718 | (28,617,177) | 81,306,971 |
| 1938 | 28,625,366 | | 28,625,366 | 46,233,364 | 28,426,549 | (12,598,451) | 90,686,828 |
| Total For Period Shown | 488,545,988 | 126,583,558 | [1] 615,129,546 | 520,643,454 | 238,988,730 | 18,381,398 | 1,393,143,128 |

See footnote at end of table.

*General Motors Corporation—Disposition of Funds Statement, Years 1921–1938, Inclusive*—Continued

| Years | Total Funds Disposed of | | | | | | Total Funds Disposed of |
|---|---|---|---|---|---|---|---|
| | Gross Expenditures for Plant and Equipment | Expenditures for Special Tools | Increase in | | | | |
| | | | Total Current Assets | Investments in Subsidiary and Affiliated Companies Not Consolidated | Treasury Stock Account | Miscellaneous Capital Requirements | |
| (1) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
| 1921 | $11,686,826 | | ($80,516,816) | ($9,625,418) | ($4,305,050) | ($8,265,799) | ($91,026,257) |
| 1922 | 13,846,990 | | 2,690,199 | 916,833 | (614,367) | 7,441,018 | 24,280,673 |
| 1923 | 29,760,327 | | 39,432,999 | 3,502,170 | 1,770,889 | (1,624,693) | 72,841,692 |
| 1924 | 16,142,511 | | (12,012,849) | 717,091 | (45,398) | (7,771,929) | (2,970,574) |
| 1925 | 12,554,261 | | 82,709,599 | 24,670,621 | 6,962,654 | (10,782,850) | 116,114,285 |
| 1926 | 137,235,271 | | 44,267,842 | (6,467,924) | 7,528,161 | 20,227,908 | 202,791,258 |
| 1927 | 55,059,752 | | 95,401,432 | 18,546,191 | 11,846,295 | (15,423,696) | 165,429,974 |
| 1928 | 79,805,568 | | 36,546,277 | 19,557,110 | 18,715,159 | (12,804,325) | 141,819,789 |
| 1929 | 75,627,053 | $27,735,483 | (99,977,685) | 89,451,319 | 19,876,283 | (4,353,442) | 108,359,011 |
| 1930 | 25,342,541 | 20,536,039 | (3,652,616) | 479,810 | (57,909,844) | 47,099,628 | 31,895,558 |
| 1931 | 17,663,114 | 20,494,734 | (7,112,599) | 3,797,947 | 492,905 | (16,099,323) | 19,236,778 |
| 1932 | 4,885,256 | 18,752,744 | (74,505,191) | (517,299) | (703,756) | 19,775,656 | (32,312,590) |
| 1933 | 7,918,507 | 14,124,368 | 37,536,864 | 17,862,623 | 4,835,452 | (7,952,239) | 74,325,575 |
| 1934 | 24,381,555 | 19,229,143 | 45,858,353 | 6,820,602 | 3,515,927 | (11,757,050) | 88,048,530 |
| 1935 | 51,160,965 | 24,516,126 | 101,654,927 | 9,927,258 | 3,389,562 | (15,126,406) | 175,522,432 |
| 1936 | 98,654,682 | 35,276,263 | 48,958,341 | (16,907,818) | (3,775,160) | (35,413,113) | 126,793,195 |
| 1937 | 76,710,670 | 32,155,546 | (21,087,612) | 15,467,685 | 5,247,022 | (27,186,340) | 81,306,971 |
| 1938 | 32,329,392 | 33,290,493 | 27,428,946 | (1,723,684) | (7,066,185) | 6,427,866 | 90,686,828 |
| Total For Period Shown | 770,765,241 | 246,110,939 | 263,620,411 | 176,475,117 | 9,760,549 | (73,589,129) | 1,393,143,128 |

[1] Total Capital Stock and Surplus at:

| | |
|---|---|
| Dec. 31, 1938 | $1,045,951,708 |
| Dec. 31, 1920 | 430,822,162 |
| Increase | 615,129,546 |

*General Motors Corporation—Summary of information requested in Question 8, Table 4*

| Question 8: Paragraph / Column | Years (1) | Depreciation Charged to Current Income (a) (2-1-a) | Amortization and Depletion Charged to Current Income (a) (2-1-b) | Recoveries from Insurance on Plant and Equipment (a) (2-2) | Amount Realized from Sale of Surplus Plant and Equipment (a) (2-3-a) | Plant Losses Charged to Current Income (a) (2-3-b) | Extraordinary Inventory Adjustments Charged to Current Income [1] (b) (3) | Net Profits Retained in the Business (c) (4-1) |
|---|---|---|---|---|---|---|---|---|
| | 1921 | $6,750,675 | | $30,162 | $2,223,256 | $3,300,495 | $16,603,073 | ($65,459,057) |
| | 1922 | 13,584,789 | | 36,644 | 2,520,596 | 1,208,839 | | 34,889,791 |
| | 1923 | 15,055,703 | | 59,179 | 2,234,603 | 1,949,349 | | 30,408,129 |
| | 1924 | 16,078,549 | | 16,479 | 1,094,402 | 815,566 | | 13,027,619 |
| | 1925 | 17,236,507 | | 51,070 | 6,230,103 | 27,281 | (See Note [1]) | 36,909,544 |
| | 1926 [2] | 20,259,974 | $138,367 | 92,648 | 1,792,223 | 674,884 | | 64,508,865 |
| | 1927 | 26,928,658 | 435,827 | 46,836 | 1,440,805 | (73,491) | | 94,373,598 |
| | 1928 | 30,515,441 | 661,213 | 77,391 | 1,105,409 | 195,684 | | 97,639,512 |
| | 1929 | 35,217,071 | 731,366 | 85,355 | 1,486,517 | 400,455 | | 78,891,705 |
| | 1930 | 37,715,088 | 727,609 | 41,418 | 4,734,442 | 461,889 | | 13,727,585 |
| | 1931 | 37,965,731 | 637,684 | 21,973 | 9,597,033 | 247,672 | | (42,998,793) |
| | 1932 | 37,173,647 | 320,620 | 77,203 | 912,235 | 367,302 | | (63,034,738) |
| | 1933 | 30,149,825 | 714,879 | 23,791 | 1,483,794 | 1,055,739 | | 20,208,476 |
| | 1934 | 32,616,832 | 1,267,984 | 57,642 | 1,119,517 | 2,308,367 | | 21,147,421 |
| | 1935 | 35,361,006 | 2,336,904 | 52,024 | 1,026,446 | 839,777 | | 61,571,542 |
| | 1936 [4] | 38,785,681 | 1,652,052 | 20,814 | 2,298,835 | 3,082 | | 36,400,906 |
| | 1937 | 43,014,913 | 1,438,128 | 76,571 | 2,639,970 | 13,224 | 4,060,186 | 26,708,517 |
| | 1938 | 46,233,364 | 786,040 | 52,806 | 883,455 | 52,724 | | 28,625,366 |
| Total For Period Shown | | $520,643,454 | 11,818,673 | $920,006 | 44,823,641 | 13,848,838 | 20,663,259 | 488,545,988 |

See footnotes at end of table.

*General Motors Corporation—Summary of information requested in Question 8, Table 4*—Continued

| Question 8: Paragraph / Column | Year (1) | Stock Dividend (c) (4–2) | Net Increase (Decrease) over Previous Year End in: Total Current Liabilities (d) (5) | Notes Payable (e) (6) | Accounts Payable (f) (7) | Other Current Liabilities (f) (7–a) | Increase in Capital Account Through Sale of Securities and Surplus Adjustments (g) (8) | Amounts Charged to Current Income to Cover Losses, or to Provide Reserves, on Items other than Inventory and Plant (h) (9) | Miscellaneous Expenses (Special Tools Charged to Current Income) (i) (10) |
|---|---|---|---|---|---|---|---|---|---|
| | 1921 | | ($33, 148, 905) | ($23, 446, 455) | ($14, 499, 849) | $4, 797, 399 | $831, 030 | $22, 552, 619 | |
| | 1922 | | (27, 791, 044) | (48, 974, 996) | 19, 172, 011 | 2, 011, 941 | 3, 597, 137 | (1, 847, 011) | |
| | 1923 | | 25, 387, 782 | 10, 000, 000 | 3, 610, 958 | 11, 776, 824 | 1, 990, 078 | 4, 984, 061 | |
| | 1924 | | (32, 076, 732) | (10, 000, 000) | (16, 588, 958) | (5, 487, 774) | (10) | 1, 239, 083 | |
| | 1925 | | 61, 968, 234 | | 18, 361, 867 | 43, 606, 367 | | 2, 032, 802 | |
| | 1926 [2] | [3] $145, 000, 000 | [3] 35, 290, 389 | | [2] (249, 113) | [2] 35, 539, 502 | [2] 82, 732, 030 | 1, 146, 782 | |
| | 1927 | | 15, 023, 551 | | 1, 393, 282 | 13, 630, 269 | 29, 104, 167 | 1, 225, 721 | |
| | 1928 | | 13, 664, 836 | | 7, 495, 820 | 6, 169, 016 | | 249, 221 | |
| | 1929 | | (55, 347, 820) | | (16, 123, 466) | (39, 224, 354) | 19, 209, 973 | 1, 620, 605 | $29, 388, 082 |
| | 1930 | | (33, 893, 303) | | (5, 736, 960) | (28, 156, 343) | (1, 401, 983) | (7, 408, 209) | 15, 748, 171 |
| | 1931 | | 806, 796 | | 6, 695, 925 | (5, 889, 129) | | 10, 333, 623 | 23, 463, 044 |
| | 1932 | | (26, 764, 976) | | (10, 681, 190) | (16, 083, 786) | | 5, 108, 669 | 20, 313, 477 |
| | 1933 | | 18, 361, 031 | | 10, 588, 289 | 7, 772, 742 | (9, 478, 864) | 2, 778, 576 | 15, 085, 107 |
| | 1934 | | 14, 015, 793 | | 5, 680, 376 | 8, 335, 417 | | 534, 005 | 20, 268, 484 |
| | 1935 | | 54, 868, 385 | | 31, 016, 526 | 23, 851, 859 | | 885, 030 | 23, 721, 499 |
| | 1936 [4] | | [4] 29, 233, 009 | | [4] 7, 346, 463 | [4] 21, 886, 546 | | (1, 503, 470) | 22, 373, 599 |
| | 1937 | | (28, 617, 177) | | (22, 250, 205) | (6, 366, 972) | | (1, 247, 197) | 40, 200, 718 |
| | 1938 | | (12, 598, 451) | | 5, 983, 303 | (18, 581, 754) | | 841, 300 | 28, 426, 549 |
| Total For Period Shown | | 145, 000, 000 | 18, 381, 398 | (72, 421, 451) | 31, 215, 079 | 59, 587, 770 | 126, 583, 558 | 43, 526, 210 | 238, 988, 730 |

[1] Inventory adjustments charged to current income represent extraordinary write-downs to market values at the end of 1921 and 1937. The turnover of the Corporation's inventories is relatively high when compared with other manufacturing companies. They are valued during each year at cost, or market, whichever is lower.

[2] The net change in accounts in the year 1926 reflects in part the consolidation of Fisher Body Corporation at the time the minority interest was acquired.

[3] On September 11, 1926, a 50% stock dividend was paid on the no-par common stock outstanding by distributing 2,900,000 shares valued at $50 per share, or a total of $145,000,000 which was charged to surplus.

[4] The net change in accounts in the year 1936 reflects in part the consolidation of certain wholly owned subsidiaries formerly carried as investments and not consolidated (see Annual Report for 1936—page 35).

## EXHIBIT No. 574

*General Motors Corporation—Summary of information requested in question 7-table 3*

| Question 7: Paragraph / Column | Years (1) | Gross Expenditures for Plant and Equipment (a) (2) | Expenditures for Special Tools [1] (2-a) | Net Increase (Decrease) over Previous Year End in: Investments in Subsidiary and Affiliated Companies Not Consolidated (b) (3) | Total Current Assets (c) (4) | Inventories (d) (5) | Sight Drafts, Notes, and Accounts Receivable (e) (6) | Cash and Marketable Securities (f) (7) | Other Current Assets (7-a) | Treasury Stock Account [2] (g) (8) | Increase in Miscellaneous Capital Requirements (h) (9) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1921 | $11,686,826 | (1) | $(9,625,418) | $(80,516,816) | $(55,922,054) | $(17,000,093) | $(7,594,669) | ---- | $(4,305,050) | $(8,265,799) |
| | 1922 | 13,846,990 | (1) | 916,833 | 2,690,199 | 8,655,198 | 6,218,349 | (12,183,348) | ---- | (614,367) | 7,441,018 |
| | 1923 | 29,760,327 | (1) | 3,502,170 | 39,432,999 | 21,260,308 | (1,000,641) | 19,173,332 | ---- | 1,770,889 | (1,624,693) |
| | 1924 | 16,142,511 | (1) | 717,091 | (12,012,849) | (41,476,445) | (11,515,797) | 40,979,393 | ---- | (45,398) | (7,771,929) |
| | 1925 | 12,554,261 | (1) | 24,670,621 | 82,709,599 | 14,889,973 | 10,736,554 | 57,083,072 | ---- | 6,962,654 | (10,782,850) |
| | 1926 [3] | 137,235,271 | (1) | (6,467,924) | 44,267,842 | 44,112,004 | 9,899,540 | (9,743,702) | ---- | 7,528,161 | 20,227,908 |
| | 1927 | 55,059,752 | (1) | 18,546,191 | 95,401,432 | 16,444,053 | 6,179,567 | 72,777,812 | ---- | 11,846,295 | (15,423,696) |
| | 1928 | 79,805,568 | (1) | 19,557,110 | 36,546,277 | 24,045,152 | 4,772,093 | 7,729,032 | ---- | 18,715,159 | (12,804,325) |
| | 1929 | 75,627,053 | $27,735,483 | 89,451,319 | (99,977,685) | (8,219,869) | (3,204,116) | (88,553,700) | ---- | 19,876,283 | (4,353,442) |
| | 1930 | 25,342,541 | 20,536,039 | 479,810 | (3,652,616) | (52,174,108) | (10,164,049) | 51,685,541 | $7,000,000 | (57,909,844) | 47,099,628 |
| | 1931 | 17,663,114 | 20,494,734 | 3,797,947 | (7,112,599) | (29,827,559) | 597,912 | 25,992,048 | (3,875,000) | 492,905 | (16,099,323) |
| | 1932 | 4,885,256 | 18,752,744 | (517,299) | (74,505,191) | (30,992,720) | (8,139,047) | (32,248,424) | (3,125,000) | (703,756) | 19,775,656 |
| | 1933 | 7,918,507 | 14,124,368 | 17,862,623 | 37,536,864 | 40,105,988 | (7,467,395) | 4,523,271 | 375,000 | 4,835,452 | (7,952,239) |
| | 1934 | 24,381,555 | 19,229,143 | 6,820,602 | 45,858,353 | 23,013,557 | 12,718,276 | 9,662,643 | 463,877 | 3,515,927 | (11,757,050) |
| | 1935 | 51,160,965 | 24,516,126 | 9,927,258 | 101,654,927 | 57,726,961 | 30,621,829 | 12,469,054 | 837,083 | 3,389,562 | (15,126,406) |
| | 1936 [4] | 98,654,682 | 35,276,263 | (16,907,818) | 48,958,341 | 29,319,695 | 13,144,497 | (3,777,491) | 10,271,640 | (3,775,160) | (35,413,113) |
| | 1937 | 76,710,670 | 32,155,546 | 15,467,685 | (21,087,612) | 53,501,570 | (17,867,422) | (44,774,160) | (11,947,600) | 5,247,022 | (27,186,340) |
| | 1938 | 32,329,392 | 33,290,493 | (1,723,684) | 27,428,946 | (79,274,743) | 14,692,381 | 92,011,308 | ---- | (7,066,185) | 6,427,866 |
| Total For Period Shown | ---- | 770,765,241 | 246,110,939 | 176,475,117 | 263,620,411 | 35,186,961 | 33,222,438 | 195,211,012 | ---- | 9,760,549 | (73,589,129) |

[1] The expenditures for special tools for the period 1921–1928, inclusive, are not readily available. These expenditures for special tools are applicable to the manufacture of the Corporation's product, and are written off during the period of a model run.

[2] The net changes in the Corporation's Treasury Stock account reflect transactions for corporate purposes. Treasury stock is carried as an asset because it was acquired for use under the Employes Savings and Investment and Employes Bonus Plans and for other corporate purposes, and not for cancellation and retirement

[3] The net changes in accounts in the year 1926 reflect in part the consolidation of Fisher Body Corporation at the time the minority interest was acquired.

[4] The net changes in accounts in the year 1936 reflect in part the consolidation of certain wholly owned subsidiaries formerly carried as investments and not consolidated (see Annual Report for 1936—page 35).

## Exhibit No. 575

*Terborgh's estimates of business gross capital formation (excluding inventories) 1921–1938*

[Millions of dollars]

| Year | Construction | | Durable Goods | | Total (Business Gross Capital Formation Excluding Inventories) |
|---|---|---|---|---|---|
| | Amount | % of Total | Amount | % of Total | |
| 1921 | 2,344 | 46.0 | 2,751 | 54.0 | 5,095 |
| 1922 | 2,536 | 44.8 | 3,130 | 55.2 | 5,666 |
| 1923 | 3,137 | 40.4 | 4,628 | 59.6 | 7,765 |
| 1924 | 3,183 | 42.2 | 4,359 | 57.8 | 7,542 |
| 1925 | 3,456 | 42.8 | 4,613 | 57.2 | 8,069 |
| 1926 | 4,031 | 45.1 | 4,903 | 54.9 | 8,934 |
| 1927 | 3,960 | 46.0 | 4,649 | 54.0 | 8,609 |
| 1928 | 3,942 | 45.1 | 4,807 | 54.9 | 8,749 |
| 1929 | 4,365 | 43.5 | 5,680 | 56.5 | 10,045 |
| 1930 | 3,683 | 44.3 | 4,624 | 55.7 | 8,307 |
| 1931 | 2,166 | 42.1 | 2,979 | 57.9 | 5,145 |
| 1932 | 1,188 | 41.9 | 1,646 | 58.1 | 2,834 |
| 1933 | 874 | 35.9 | 1,559 | 64.1 | 2,433 |
| 1934 | 1,102 | 31.9 | 2,357 | 68.1 | 3,459 |
| 1935 | 1,245 | 28.4 | 3,145 | 71.6 | 4,390 |
| 1936 | 1,628 | 27.2 | 4,367 | 72.8 | 5,995 |
| 1937 | 2,175 | 28.9 | 5,341 | 71.1 | 7,516 |
| 1938 | 1,816 | 33.2 | 3,646 | 66.8 | [1] 5,462 |

[1] Preliminary.

Source: Statement by Dr. Lauchlin Currie before Temporary National Economic Committee, May 16, 1939. Data prepared by George A. Terborgh, Board of Governors of the Federal Reserve System.

## Exhibit No. 576

*Business gross capital formation, capital consumption, and net capital formation (excluding inventories), 1919–1937*

[Millions of dollars]

| Years | Gross Capital Formation | Capital Consumption | | Net Capital Formation |
|---|---|---|---|---|
| | | Amount | Percent of Gross | |
| 1919 | 8,996 | 6,297 | 70.0 | 2,699 |
| 1920 | 9,306 | 7,263 | 78.0 | 2,043 |
| 1921 | 6,112 | 5,492 | 89.8 | 620 |
| 1922 | 6,631 | 5,293 | 79.8 | 1,338 |
| 1923 | 8,567 | 6,002 | 70.0 | 2,565 |
| 1924 | 8,475 | 5,857 | 69.1 | 2,618 |
| 1925 | 9,349 | 5,954 | 63.7 | 3,395 |
| 1926 | 10,082 | 6,550 | 65.0 | 3,532 |
| 1927 | 9,938 | 6,457 | 65.0 | 3,481 |
| 1928 | 10,237 | 6,674 | 65.2 | 3,563 |
| 1929 | 11,489 | 7,134 | 62.1 | 4,355 |
| 1930 | 9,280 | 6,746 | 72.7 | 2,534 |
| 1931 | 5,768 | 6,058 | 105.0 | −290 |
| 1932 | 3,116 | 5,200 | 166.9 | −2,084 |
| 1933 | 2,987 | 4,921 | 164.7 | −1,934 |
| 1934 | 4,318 | 5,135 | 118.9 | −817 |
| 1935 | 5,420 | 5,299 | 97.8 | 121 |
| 1936 | 7,120 | 5,577 | 78.3 | 1,543 |
| 1937 | 9,239 | 6,235 | 67.7 | 3,004 |

Source: Kuznets, *National Income and Capital Formation, 1919–1935* (New York, 1937), pp. 40, 48. Data for 1934–1937 are preliminary and are reproduced by special permission of Dr. Kuznets and the National Bureau of Economic Research.

## EXHIBIT No. 577

*Estimated business expenditures for new durable goods (excluding inventories) and business depreciation and depletion allowances, 1920–1937*

[Millions of dollars]

| Year | Estimated Expenditures for New Durable Goods | Depreciation & Depletion | | | New Durable Goods Expenditures Minus Depreciation and Depletion Allowances |
|---|---|---|---|---|---|
| | | Depreciation | Depletion | Total | |
| | (1) | (2) | (3) | (4) | (5) |
| 1920 | 8,174 | 2,526 | ---------- | 2,526 | 5,648 |
| 1921 | 5,099 | 2,696 | ---------- | 2,696 | 2,403 |
| 1922 | 5,582 | 3,083 | ---------- | 3,083 | 2,499 |
| 1923 | 7,773 | 3,190 | ---------- | 3,190 | 4,583 |
| 1924 | 7,558 | 3,282 | ---------- | 3,282 | 4,276 |
| 1925 | 7,972 | 3,467 | 509 | 3,976 | 3,996 |
| 1926 | 8,811 | 3,949 | 602 | 4,551 | 4,260 |
| 1927 | 8,481 | 3,960 | 527 | 4,487 | 3,994 |
| 1928 | 8,751 | 4,258 | 541 | 4,799 | 3,952 |
| 1929 | 10,230 | 4,562 | 583 | 5,145 | 5,085 |
| 1930 | 8,408 | 4,635 | 483 | 5,118 | 3,290 |
| 1931 | 5,148 | 4,615 | 282 | 4,897 | 251 |
| 1932 | 2,461 | 4,293 | 257 | 4,550 | −2,089 |
| 1933 | 2,284 | 4,097 | 257 | 4,354 | −2,070 |
| 1934 | 3,350 | 3,943 | 322 | 4,265 | −915 |
| 1935 | 4,194 | 3,930 | 361 | 4,291 | −97 |
| 1936 | 5,737 | 4,001 | 413 | 4,414 | 1,323 |
| 1937 | 7,480 | 4,152 | 457 | 4,609 | 2,871 |

Sources: Expenditures for new durable goods from data prepared by George A. Terborgh of the Board of Governors of the Federal Reserve System. Depreciation and depletion data from Fabricant, *Capital Consumption and Adjustment* (New York 1938). Data for 1936 and 1937 are preliminary and are reproduced by special permission of Dr. Fabricant and the National Bureau of Economic Research.

## EXHIBIT No. 578

*Compiled net profits, dividends, depreciation and depletion of all non-financial corporations, 1923–1937*

[Millions of dollars]

| Years | Compiled Net Profits [1] | Dividends | Undistributed Profits | Depreciation | Depletion | Total Sources |
|---|---|---|---|---|---|---|
| 1923 | 5,818 | 3,536 | 2,282 | 2,969 | ---------- | 5,251 |
| 1924 | 4,853 | 3,645 | 1,208 | 3,004 | ---------- | 4,212 |
| 1925 | 6,536 | 4,292 | 2,244 | 2,669 | 460 | 5,373 |
| 1926 | 6,821 | 4,966 | 1,855 | 3,025 | 564 | 5,444 |
| 1927 | 5,851 | 5,355 | 496 | 3,110 | 497 | 4,103 |
| 1928 | 7,308 | 5,760 | 1,548 | 3,319 | 507 | 5,374 |
| 1929 | 8,352 | 6,593 | 1,759 | 3,564 | 553 | 5,876 |
| 1930 | 3,089 | 6,555 | −3,466 | 3,650 | 459 | 643 |
| 1931 | −651 | 4,895 | −5,546 | 3,652 | 265 | −1,629 |
| 1932 | −2,976 | 3,120 | −6,096 | 3,393 | 245 | −2,458 |
| 1933 | −247 | 2,552 | −2,799 | 3,205 | 244 | 650 |
| 1934 | 1,755 | 3,610 | −1,855 | 3,040 | 309 | 1,494 |
| 1935 | 2,976 | 4,381 | −1,405 | 3,034 | 346 | 1,975 |
| 1936 | 4,877 | 5,587 | −710 | 3,014 | 434 | 2,738 |
| 1937 | ---------- | ---------- | [2] 100 | [3] 3,250 | [3] 480 | [2] 3,830 |
| 1937 | ---------- | ---------- | [4] −723 | [3] 3,250 | [3] 480 | [4] 3,007 |

[1] After taxes.
[2] Estimate based upon the profits of 400 industrial companies compiled by Standard Statistics Co.
[3] Estimate.
[4] Estimates based upon approximately 2900 corporations used by the Department of Commerce in its national income estimates.

Source: Statistics of Income.

## Exhibit No. 579

*Indexes of prices of business capital goods, 1920–1937*

| Year | National Bureau of Economic Research: Capital Equipment | American Appraisal Co.: Construction Costs | Fabricant: Weighted Index Durable Goods and Construction |
|---|---|---|---|
| 1920 | 155.4 | 131.5 | 130.2 |
| 1921 | 109.3 | 100.5 | 102.4 |
| 1922 | 103.2 | 92.8 | 93.0 |
| 1923 | 113.7 | 104.1 | 103.5 |
| 1924 | 107.8 | 102.7 | 101.4 |
| 1925 | 106.4 | 99.7 | 99.5 |
| 1926 | 104.5 | 100.0 | 99.4 |
| 1927 | 99.4 | 99.8 | 99.2 |
| 1928 | 99.0 | 99.7 | 98.0 |
| 1929 | 100.0 | 100.0 | 100.0 |
| 1930 | 92.7 | 96.8 | 95 7 |
| 1931 | 85.7 | 83.6 | 88.7 |
| 1932 | 81.4 | 74.0 | 82.1 |
| 1933 | 79.9 | 71.5 | 80.5 |
| 1934 | 86.3 | 76.9 | 87.2 |
| 1935 | 85.4 | 77.4 | 88.4 |
| 1936 | | | 90.4 |
| 1937 | | | 98.5 |

*Source:* Fabricant, *Capital Consumption and Adjustment* (1938). Data for 1936 and 1937 are preliminary and are reproduced by special permission of Dr. Fabricant and the National Bureau of Economic Research.

## Exhibit No. 580

*Index of prices of business capital goods for replacements and for depreciation charges, 1920–1937*

[Relative to 1929 prices=100]

| Year | Prices Underlying Business Depreciation Charges | Replacement Costs | Ratio of Prices for Depreciation Charges to Replacement Costs |
|---|---|---|---|
| 1920 | 84.3 | 130.2 | 64.7 |
| 1921 | 88.6 | 102.4 | 86.5 |
| 1922 | 90.1 | 93.0 | 96.9 |
| 1923 | 91.5 | 103.5 | 88.4 |
| 1924 | 93.3 | 101.4 | 92.0 |
| 1925 | 94.7 | 99.5 | 95.2 |
| 1926 | 96.3 | 99.4 | 96.9 |
| 1927 | 97.6 | 99.2 | 98.4 |
| 1928 | 98.9 | 98.0 | 100.9 |
| 1929 | 100.0 | 100.0 | 100.0 |
| 1930 | 101.0 | 95.7 | 105.5 |
| 1931 | 101.1 | 88.7 | 114.0 |
| 1932 | 100.8 | 82.1 | 122.8 |
| 1933 | 100.1 | 80.5 | 124.3 |
| 1934 | 99.4 | 87.2 | 114.0 |
| 1935 | 99.2 | 88.4 | 112.2 |
| 1936 | 99.3 | 90.4 | 109.8 |
| 1937 | 100.2 | 98.5 | 101.7 |

Source: Fabricant, *Capital Consumption and Adjustment* (New York, 1938). Data for 1936 and 1937 are preliminary and are reproduced by special permission of Dr. Fabricant and the National Bureau of Economic Research. Business depreciation charges from Table 35, p. 183; replacement costs from Table 32, pp. 178–79. The Fabricant business depreciation charges series was based on 1929 prices as equal to 100. His series has been converted to a 1929 base by raising his 1929 index of 89.2 to 100.

## Exhibit No. 581

*Business savings for all nonfinancial enterprises, capital gains and capital losses for all nonfinancial corporations, and adjusted business savings for all nonfinancial enterprises, 1922–1937*

[Millions of dollars]

| Year | (1) Business Savings | (2) Capital Gains | (3) Capital Losses | (4) Capital Gains—Capital Losses (2)—(3) | (5) Adjusted Business Savings (1)+(4) |
|---|---|---|---|---|---|
| 1922 | 1,676 | | | (1) | 1,676 |
| 1923 | 2,432 | | | (1) | 2,432 |
| 1924 | 1,463 | | | (1) | 1,463 |
| 1925 | 2,851 | | | (1) | 2,851 |
| 1926 | 2,223 | | | (1) | 2,223 |
| 1927 | 996 | | | (1) | 996 |
| 1928 | 2,830 | | | (1) | 2,830 |
| 1929 | 2,688 | 428 | [2] 200 | [2] 228 | [2] 2,916 |
| 1930 | −4,632 | 279 | 353 | −74 | −4,706 |
| 1931 | −7,484 | 158 | 614 | −456 | −7,940 |
| 1932 | −8,241 | 70 | 600 | −530 | −8,771 |
| 1933 | −2,464 | 104 | 616 | −512 | −2,976 |
| 1934 | −855 | 100 | 100 | 0 | −855 |
| 1935 | 451 | 121 | 81 | 40 | 491 |
| 1936 | 1,231 | 136 | 42 | 94 | 1,325 |
| 1937 | 842 | (1) | (1) | (1) | 842 |

[1] Not available.
[2] Estimate.

Sources: (1) Department of Commerce compilations. (2), (3) *Statistics of Income.* (4), (5) Computed as indicated. It should be noted that the adjustment is made with data for nonfinancial corporations only

## Exhibit No. 582

*Undistributed profits, depreciation, and depletion of nonfinancial corporations, 1923–1937*

[Millions of dollars]

| Year | Undistributed Profits | Depreciation and Depletion | | | Savings, Depreciation & Depletion |
|---|---|---|---|---|---|
| | | Depreciation | Depletion | Total | |
| 1923 | 2,282 | 2,969 | | 2,969 | 5,251 |
| 1924 | 1,208 | 3,004 | | 3,004 | 4,212 |
| 1925 | 2,244 | 2,669 | 460 | 3,129 | 5,373 |
| 1926 | 1,855 | 3,025 | 564 | 3,589 | 5,444 |
| 1927 | 496 | 3,110 | 497 | 3,607 | 4,103 |
| 1928 | 1,548 | 3,319 | 507 | 3,826 | 5,374 |
| 1929 | 1,759 | 3,564 | 553 | 4,117 | 5,876 |
| 1930 | −3,466 | 3,650 | 459 | 4,109 | 643 |
| 1931 | −5,546 | 3,652 | 265 | 3,917 | −1,629 |
| 1932 | −6,096 | 3,393 | 245 | 3,638 | −2,458 |
| 1933 | −2,799 | 3,205 | 244 | 3,449 | 650 |
| 1934 | −1,855 | 3,040 | 309 | 3,349 | 1,494 |
| 1935 | −1,405 | 3,034 | 346 | 3,380 | 1,975 |
| 1936 | −710 | 3,014 | 434 | 3,448 | 2,738 |
| 1937 | [1] 100 | [3] 3,250 | [3] 480 | [3] 3,730 | 3,830 |
| 1937 | [2] −723 | [3] 3,250 | [3] 480 | [3] 3,730 | 3,007 |

[1] Estimate, based upon relationship of all corporations to 400 industrials reported by Standard Statistics Co.
[2] Estimate, based upon relationship of all corporations to approximately 2,900 corporations used in national income sample by the Department of Commerce.
[3] Estimate, based on projection of available data.

Source: *Statistics of Income.*

## Exhibit No. 583

*Undistributed profits, depreciation, and depletion of net income nonfinancial corporations, 1923–1935*

[Millions of dollars]

| Year | Undistributed Profits | Depreciation and Depletion | | | Savings, Depreciation, & Depletion |
|---|---|---|---|---|---|
| | | Depreciation | Depletion | Total | |
| 1923 | 3,991 | 2,194 | | 2,194 | 6,185 |
| 1924 | 3,086 | 2,238 | | 2,238 | 5,324 |
| 1925 | 3,886 | 2,220 | 366 | 2,586 | 6,472 |
| 1926 | 3,635 | 2,489 | 459 | 2,948 | 6,583 |
| 1927 | 2,692 | 2,334 | 296 | 2,630 | 5,322 |
| 1928 | 3,548 | 2,667 | 396 | 3,063 | 6,611 |
| 1929 | 3,823 | 2,936 | 463 | 3,399 | 7,222 |
| 1930 | 379 | 2,437 | 241 | 2,678 | 3,057 |
| 1931 | 144 | 1,613 | 77 | 1,690 | 1,834 |
| 1932 | −71 | 1,143 | 83 | 1,226 | 1,155 |
| 1933 | 582 | 1,492 | 84 | 1,576 | 2,158 |
| 1934 | 648 | 1,647 | 151 | 1,798 | 2,446 |
| 1935 | 910 | 1,821 | 178 | 1,999 | 2,909 |
| 1936 | | | | | [1] 3,705 |

[1] Estimate.

Source: *Statistics of Income.*

## Exhibit No. 584

*Undistributed profits, depreciation and depletion of no net income nonfinancial corporations, 1923–1935*

[Millions of dollars]

| Year | Undistributed Profits | Depreciation and Depletion | | | Savings, Depreciation, & Depletion |
|---|---|---|---|---|---|
| | | Depreciation | Depletion | Total | |
| 1923 | −1,709 | 775 | | 775 | −934 |
| 1924 | −1,876 | 766 | | 766 | −1,110 |
| 1925 | −1,641 | 447 | 94 | 541 | −1,100 |
| 1926 | −1,780 | 536 | 104 | 640 | −1,140 |
| 1927 | −2,198 | 776 | 200 | 976 | −1,222 |
| 1928 | −2,000 | 652 | 112 | 764 | −1,236 |
| 1929 | −2,065 | 628 | 90 | 718 | −1,347 |
| 1930 | −3,846 | 1,212 | 217 | 1,429 | −2,417 |
| 1931 | −5,689 | 2,039 | 188 | 2,227 | −3,462 |
| 1932 | −6,025 | 2,250 | 162 | 2,412 | −3,613 |
| 1933 | −3,380 | 1,713 | 161 | 1,874 | −1,506 |
| 1934 | −2,503 | 1,393 | 158 | 1,551 | −952 |
| 1935 | −2,316 | 1,212 | 169 | 1,381 | −935 |
| 1936 | | | | | [1] −967 |

[1] Estimate.

Source: *Statistics of Income.*

## Exhibit No. 585

[Chart based on following statistical data appears in text on p. 3683]

*Compiled net profits, after cash dividends, plus depreciation and depletion, by income and no net income nonfinancial corporations, 1923–1936*

[Millions of dollars]

| Year | All corporations | Corporations reporting net income | Corporations reporting no net income |
|---|---|---|---|
| 1923 | 5,251 | 6,185 | −934 |
| 1924 | 4,212 | 5,324 | −1,110 |
| 1925 | 5,373 | 6,472 | −1,100 |
| 1926 | 5,444 | 6,583 | −1,140 |
| 1927 | 4,103 | 5,322 | −1,222 |
| 1928 | 5,374 | 6,611 | −1,236 |
| 1929 | 5,876 | 7,222 | −1,347 |
| 1930 | 643 | 3,057 | −2,417 |
| 1931 | −1,629 | 1,834 | −3,462 |
| 1932 | −2,458 | 1,155 | −3,613 |
| 1933 | 650 | 2,158 | −1,506 |
| 1934 | 1,494 | 2,446 | −952 |
| 1935 | 1,975 | 2,909 | −935 |
| 1936 | 2,738 | 3,705 | −967 |

Source: *Statistics of Income.*

## Exhibit No. 586

[Chart based on following statistical data appears in text on p. 3685]

*Financing investments in business plant and equipment, 1922–1937*

[Principal sources of funds available for the financing of the investments of all nonfinancial business enterprises in plant and equipment, compared with Terborgh's estimates of business expenditures for durable producers' goods]

[In millions of dollars]

| Year | External sources of funds: Moody's "Productive Issues" | Internal source of funds, all nonfinancial business enterprises | | | | Total external and internal 1+5 | Estimated business expenditure for new durable producers' goods—Terborgh (inventories excluded) |
|---|---|---|---|---|---|---|---|
| | | Net profits after cash dividends and taxes | Depreciation | Depletion | Total 2+3+4 | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1922 | 1,335 | 1,676 | 3,083 | ---------- | 4,759 | 6,094 | 5,582 |
| 1923 | 1,624 | 2,432 | 3,190 | ---------- | 5,622 | 7,246 | 7,773 |
| 1924 | 1,941 | 1,463 | 3,282 | ---------- | 4,745 | 6,686 | 7,558 |
| 1925 | 1,824 | 2,851 | 3,467 | 509 | 6,827 | 8,651 | 7,972 |
| 1926 | 1,801 | 2,223 | 3,949 | 602 | 6,774 | 8,575 | 8,811 |
| 1927 | 1,781 | 996 | 3,960 | 527 | 5,483 | 7,264 | 8,481 |
| 1928 | 1,495 | 2,830 | 4,258 | 541 | 7,629 | 9,124 | 8,751 |
| 1929 | 1,787 | 2,916 | 4,562 | 583 | 8,061 | 9,848 | 10,230 |
| 1930 | 1,939 | −4,706 | 4,635 | 483 | [1] 4,742 | [1] 6,681 | 8,408 |
| 1931 | 796 | −7,940 | 4,615 | 282 | [1] 237 | [1] 1,033 | 5,148 |
| 1932 | 208 | −8,771 | 4,293 | 257 | [1] −2,721 | [1] −2,518 | 2,641 |
| 1933 | 106 | −2,976 | 4,097 | 257 | 1,378 | 1,484 | 2,284 |
| 1934 | 74 | −855 | 3,943 | 322 | 3,410 | 3,484 | 3,350 |
| 1935 | 94 | 491 | 3,930 | 361 | 4,782 | 4,876 | 4,194 |
| 1936 | 379 | 1,325 | 4,001 | 413 | 5,739 | 6,118 | 5,737 |
| 1937 | 630 | 842 | 4,152 | 457 | 5,451 | 6,081 | 7,480 |

[1] After an inventory adjustment of $4,330 million in 1930, $3,280 million in 1931, and $1,509 million in 1932.

Sources: (1) Moody's Investor's Service.

(2) Department of Commerce; savings of all business enterprises for 1922–1928; for 1929–1936, the data refer to all nonfinancial business enterprises, adjusted for capital gains and capital losses of all nonfinancial corporations as given in the annual reports of *Statistics of Income*; the figure for 1937 represents the savings of all nonfinancial business enterprises without adjustment for capital gains and capital losses, which are not yet available.

(3) and (4) These data refer to all business enterprises, including finance and real estate. They were taken from Fabricant, *Capital Consumption and Adjustment*, pp. 32, 33 and 38. The data for 1936 and for 1937 are preliminary and are reproduced by special permission of Dr. Fabricant and the National Bureau of Economic Research. The basic materials for these compilations were taken from corporate reports made for income-tax purposes and published in *Statistics of Income*.

(7) Unpublished estimates of George A. Terborgh, Board of Governors of Federal Reserve System.

## Exhibit No. 587

*Assets and liabilities of all nonfinancial corporations, 1926–1936*

[Millions of dollars]

| | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Assets: | | | | | | | | | | | |
| Cash | $7,025 | $7,130 | $7,674 | $7,900 | $7,805 | $6,495 | $6,337 | $5,984 | $6,259 | $6,679 | $7,230 |
| Notes and Accounts Receivable | 17,761 | 18,828 | 21,775 | 22,681 | 20,517 | 17,466 | 14,916 | 14,600 | 16,889 | 15,803 | 16,191 |
| Inventories | 20,016 | 19,937 | 20,076 | 20,990 | 18,309 | 14,891 | 12,221 | 13,458 | 14,177 | 14,678 | 16,519 |
| Investments: Tax Exempt | 2,871 | 3,128 | 3,426 | 2,958 | 2,615 | 2,608 | 2,733 | 2,839 | 2,543 | 2,127 | 2,040 |
| Investments: Other than Tax Exempt | | | | 21,824 | 29,286 | 24,755 | 27,417 | 24,687 | 23,488 | 23,092 | 21,373 |
| Capital Assets | 84,094 | 89,694 | 92,962 | 98,627 | 102,202 | 97,665 | 93,919 | 91,246 | 88,063 | 87,160 | 87,635 |
| Other Assets | 30,960 | 35,907 | 35,612 | 20,073 | 13,231 | 11,577 | 11,785 | 9,918 | 9,048 | 8,863 | 8,083 |
| Total Assets | 162,727 | 174,625 | 181,526 | 195,054 | 193,967 | 175,454 | 169,330 | 162,732 | 160,467 | 158,403 | 159,071 |
| Liabilities: | | | | | | | | | | | |
| Notes and Accounts Payable | 17,360 | 17,947 | 19,713 | 20,799 | 19,230 | 16,289 | 14,937 | 14,537 | 18,989 | 18,184 | 18,766 |
| Bonded Debts | 17,061 | 28,693 | 34,840 | 36,508 | 39,203 | 37,101 | 37,915 | 37,231 | 34,992 | 36,785 | 36,316 |
| Other Liabilities | 30,214 | 20,702 | 14,135 | 16,170 | 14,984 | 12,551 | 13,162 | 11,834 | 11,712 | 11,744 | 13,172 |
| Capital Stock: Preferred | 15,190 | 15,514 | 15,707 | 15,968 | 15,302 | 15,627 | 15,814 | 15,360 | 12,610 | 11,819 | 11,759 |
| Capital Stock: Common | 55,740 | 60,642 | 61,968 | 65,608 | 66,525 | 61,700 | 62,039 | 58,640 | 59,598 | 57,347 | 55,858 |
| Surplus less Deficit | 27,161 | 31,127 | 35,161 | 40,003 | 38,721 | 32,184 | 25,462 | 25,131 | 22,565 | 22,523 | 23,200 |

Source: *Statistics of Income.*

## EXHIBIT No. 588

*Changes in assets and liabilities of all non-financial corporations, 1927–1936*

[Millions of dollars]

| Changes in Year Ending Dec. 31 | Cash | Notes and Accounts Receivable | Inventories | Investments: Tax Exempt | Investments: Other | Capital Assets | Other Assets |
|---|---|---|---|---|---|---|---|
| 1927 | +105 | +1,067 | −79 | +257 | ---------- | +5,600 | +4,947 |
| 1928 | +544 | +2,917 | +137 | +298 | ---------- | +3,268 | −295 |
| 1929 | +226 | +906 | +914 | −468 | +21,824 | +5,665 | −15,539 |
| 1930 | −95 | −2,164 | −2,681 | −343 | +7,462 | +3,575 | −6 842 |
| 1931 | −1,310 | −3,051 | −3,418 | −7 | −4,531 | −4,537 | −1,654 |
| 1932 | −158 | −2,550 | −2,670 | +125 | +2,662 | −3,746 | +208 |
| 1933 | −353 | −316 | +1,237 | +106 | −2,730 | −2,673 | −1,867 |
| 1934 | +275 | +2,289 | +719 | −296 | −1,199 | −3,183 | −870 |
| 1935 | +420 | −1,086 | +501 | −416 | −396 | −903 | −185 |
| 1936 | +551 | +388 | +1,841 | −87 | −1.719 | +475 | −780 |

| Changes in Year Ending Dec. 31 | Total Assets | Notes and Accounts Payable | Bonded Debt | Other Liabilities | Capital Stock: Preferred | Capital Stock: Common | Surplus |
|---|---|---|---|---|---|---|---|
| 1927 | +11,898 | +587 | +11,632 | −9,512 | +324 | +4,902 | +3,966 |
| 1928 | +6,901 | +1,766 | +6,147 | −6,567 | +193 | +1,326 | +4,034 |
| 1929 | +13,528 | +1,086 | +1,668 | +2,035 | +261 | +3,640 | +4,842 |
| 1930 | −1,087 | −1,569 | +2,695 | −1,186 | −666 | +917 | −1,282 |
| 1931 | −18,513 | −2.941 | −2,102 | −2,433 | +325 | +4,825 | −6,537 |
| 1932 | −6,124 | −1,352 | +814 | +611 | +187 | +339 | −6,722 |
| 1933 | −6,598 | −400 | −684 | −1,328 | −454 | −3,399 | −331 |
| 1934 | −2,265 | +4,452 | −2,239 | −122 | −2,750 | +958 | −2,566 |
| 1935 | −2,064 | −805 | +1,793 | +32 | −791 | −2,251 | −42 |
| 1936 | +668 | +582 | −469 | +1,428 | −60 | −1,489 | +677 |

Source: Compiled from *Statistics of Income.*

## EXHIBIT No. 589

*Inventory revaluations, 1919–1935, of all business enterprises, excluding farms*

[Millions of dollars]

| Year | Inventory Change in— | | Change in Book Value of Inventories | Revaluation Included in Year's National Income | Year | Inventory Change in— | | Change in Book Value Inventories | Revaluation Included in Year's National Income |
|---|---|---|---|---|---|---|---|---|---|
| | Constant (1929) Prices | Current Prices | | | | Constant (1929) Prices | Current Prices | | |
| 1919 | 2,832 | 3,888 | 5,986 | 2,098 | 1928 | −482 | −460 | −508 | −48 |
| 1920 | 3,507 | 5,908 | 1,708 | −4,200 | 1929 | 2,484 | 2,484 | 1,772 | −712 |
| 1921 | 522 | 568 | −6,185 | −6,753 | 1930 | −978 | −982 | −5,313 | −4,331 |
| 1922 | 388 | 581 | 1,552 | 971 | 1931 | −1,940 | −1,655 | −4,963 | −3,308 |
| 1923 | 2,802 | 3,001 | 3,219 | 218 | 1932 | −3,614 | −2,586 | −4,106 | −1,520 |
| 1924 | −218 | −222 | −396 | −174 | 1933 | −1,255 | −874 | 1,566 | 2,440 |
| 1925 | 1,068 | 1,075 | 1,469 | 394 | 1934 | −994 | −862 | 1,269 | 2,130 |
| 1926 | 1,687 | 1,901 | 114 | −1,787 | 1935 | −813 | −630 | 155 | 785 |
| 1927 | 387 | 391 | −454 | −845 | | | | | |

Source: *Studies in Income and Wealth*, Vol. I (New York, 1937).

## Exhibit No. 590

*Inventory revaluations, 1919–1933, of all business enterprises, excluding farm and security inventory revaluations*

[Millions of dollars]

| Year | Inventory Change in— | | Change in Book Value of Inventories | Revaluation Included in Year's National Income | Year | Inventory Change in— | | Change in Book Value Inventories | Revaluation Included in Year's National Income |
|---|---|---|---|---|---|---|---|---|---|
| | Constant (1929) Prices | Current Prices | | | | Constant (1929) Prices | Current Prices | | |
| 1919 | 2,838 | 3,902 | 5,302 | | 1927 | 236 | 253 | −610 | |
| 1920 | 3,561 | 5,996 | 2,206 | | 1928 | −62 | −34 | −81 | |
| 1921 | 522 | 578 | −6,103 | | 1929 | 2,217 | 2,213 | 1,504 | |
| 1922 | 342 | 528 | 1,529 | | 1930 | −479 | −484 | −4,814 | −4,330 |
| 1923 | 2,775 | 2,969 | 3,183 | | 1931 | −1,724 | −1,452 | −4,732 | −3,280 |
| 1924 | −359 | −376 | −526 | | 1932 | −3,513 | −2,497 | −3,997 | −1,500 |
| 1925 | 824 | 819 | 1,226 | | 1933 | −1,262 | −878 | 1,575 | 2,453 |
| 1926 | 1,339 | 1,553 | −203 | | | | | | |

Source: Computed from Kuznets, *Commodity Flow of Capital Formation.*

NOTE.—Changes in inventories measured in current valuations were computed by subtracting from total business inventories measured in current valuations the components dealing with farm and finance inventories. The finance inventories, measured in current valuations were deflated by the annual average index of finance prices to yield finance inventories measured in constant prices, and this series was subtracted from business inventories minus farm inventories, in constant prices, as computed by Kuznets. Changes in business inventories minus farm and finance inventories were then computed directly from this revised series. The financial inventory changes in constant prices were then converted to changes measured in current prices by the use of the same price indexes and these data were subtracted from changes in business minus finance inventories, measured in current prices, as computed by Kuznets to yield a series of changes in current prices of business inventories after exclusion of farm and finance inventories. Differences in these series were then tabulated directly.

## Exhibit No. 591

*Sources and uses of funds—1930–1938—56 industrial companies*

[Net sources in roman. Net uses in italics]

[In millions of dollars]

| | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| USES | | | | | | | | | | |
| 1. Capital expenditures | *738* | *357* | *146* | *187* | *298* | *434* | *625* | *850* | *549* | *4,184* |
| 3. Increase in inventories | −223 | −339 | −254 | *85* | *143* | *124* | *252* | *440* | −293 | −65 |
| 4. Increase in receivables | −134 | −142 | −168 | −12 | −5 | *128* | *150* | *22* | −40 | −201 |
| 5. Increase in marketable securities | −172 | *70* | −102 | *128* | −95 | −102 | −37 | −94 | *28* | −376 |
| 6. Increase in cash | *118* | −147 | *65* | −158 | *8* | *148* | −4 | −149 | *310* | *191* |
| 2-13. Residual (including increase in investments) | *209* | *106* | *87* | *2* | −28 | *8* | *10* | −8 | *2* | *383* |
| SOURCES | | | | | | | | | | |
| 7. "Undistributed gross income" | 493 | 77 | 43 | 229 | 349 | 621 | 670 | 767 | 535 | 3,784 |
| 8. Common stock | 135 | 12 | *−21* | 21 | *−7* | 25 | 101 | 138 | 2 | 406 |
| 9. Preferred stock | | *−20* | *−7* | *−5* | *−1* | *−53* | 3 | 56 | *−1* | *−28* |
| 10. Long-term debt | 105 | 11 | *−139* | *−73* | *−109* | *−45* | 9 | *−51* | 305 | 13 |
| 11+12. Current liabilities | *−197* | *−175* | *−102* | 60 | 89 | 192 | 213 | 151 | *−285* | *−54* |
| ANALYSIS OF "UNDISTRIBUTED GROSS INCOME" | | | | | | | | | | |
| 14. Net income | 665 | 170 | *−51* | 96 | 237 | 530 | 875 | 1,002 | 443 | 3,967 |
| 15. Minus, dividends paid | *672* | *543* | *301* | *248* | *273* | *330* | *653* | *721* | *383* | *4,127* |
| 16. Plus, depreciation allowances | 499 | 450 | 395 | 381 | 385 | 419 | 448 | 486 | 480 | 3,943 |

NOTE.—The numbers used to identify the rows in this table are the same as those used in "Exhibits Nos. 592–94." Data for lines 2 and 13, and 11 and 12, which are shown separately on "Exhibits Nos. 592–94," were not available for all the 56 companies. It was possible to compute only (2 minus 13) and (11 plus 12) for all the companies.

Source: Data compiled by A. B. Hersey, Division of Research and Statistics, Board of Governors of the Federal Reserve System.

*Coverage of the samples*

[In millions of dollars]

| Companies | Net fixed property | | Inventories | | Total assets | | Long-term debt [1] | |
|---|---|---|---|---|---|---|---|---|
| | 1936 | 1938 | 1936 | 1938 | 1936 | 1938 | 1936 | 1938 |
| Steel | 2,531 | 2,421 | 563 | 632 | 3,660 | 3,610 | 535 | 701 |
| Automobile | 526 | 540 | 339 | 290 | 1,653 | 1,637 | 4 | 2 |
| 1 Petroleum | 2,099 | 2,329 | 385 | 436 | 3,106 | 3,533 | 307 | 393 |
| 8 Machinery | 407 | 436 | 356 | 378 | 1,610 | 1,627 | 46 | 31 |
| Rubber & tires | 251 | 278 | 200 | 187 | 658 | 662 | 179 | 189 |
| Tobacco | 56 | 60 | 415 | 489 | 706 | 760 | 58 | 74 |
| 56 companies | 5,870 | 6,064 | 2,258 | 2,412 | 11,393 | 11,829 | 1,129 | 1,390 |

[1] Including minority holdings of subsidiaries' stocks.

NOTES ON COMPOSITION OF SELECTED ITEMS OF SOURCES AND USES OF FUNDS

1. Source of funds through common stock, preferred stock and long-term debt includes (a) transactions n reacquired securities and (b) premiums or discounts.
2. Adjustments to net income are to exclude (a) credits or charges for revaluations of fixed property and nvestments, and (b) premiums or discounts on security transactions
3. Dividends and "stock" exclude stock dividends.
4. The residual item includes principally credits and charges to contingency reserves, etc., against income r current asset accounts. In the table for 56 companies the residual item also reflects changes in investments n affiliates, etc.
5. See footnotes to table for 7 automobile companies for additional comments on items for that group.

## Exhibit No. 592

*Sources and uses of funds—1930–1938—11 oil companies*

[Net sources in roman. Net uses in italic]

[In thousands of dollars]

| | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | 9-year totals |
|---|---|---|---|---|---|---|---|---|---|---|
| USES | | | | | | | | | | |
| 1. Capital expenditures | *352,817* | *161,964* | *91,740* | *117,288* | *190,020* | *221,692* | *295,211* | *378,408* | *309,117* | *2,118,257* |
| 2. Increase in investments | *30,161* | *33,448* | *38,136* | *5,646* | −22,641 | *16,103* | *35,116* | *12,103* | *10,197* | *158,269* |
| 3. Increase in inventories | −55,586 | −116,672 | −34,951 | *3,067* | *600* | −13,377 | *3,082* | *63,085* | −12,866 | −163,618 |
| 4. Increase in receivables | −7,436 | −18,826 | −6,212 | −4,487 | −7,231 | *1,071* | *14,813* | *26,532* | −9,210 | −10,986 |
| 5. Increase in marketable securities | −42,804 | −19,406 | −14,072 | *6,106* | −12,386 | *4,824* | −4,497 | *772* | −13,994 | −95,457 |
| 6. Increase in cash | −15,488 | −19,702 | *6,697* | *17,097* | −23,769 | *28,549* | −13,881 | *7,378* | *67,123* | *54,004* |
| SOURCES | | | | | | | | | | |
| 7. "Undistributed gross income" | 249,021 | 84,407 | 179,115 | 176,069 | 205,115 | 262,929 | 304,741 | 367,096 | 280,249 | 2,108,745 |
| 8. Common stock | 1,528 | 2,358 | *−5,674* | 201 | *−3,049* | 856 | 18,026 | 81,169 | 108 | 95,523 |
| 9. Preferred stock | 6,000 | *−2,704* | *−380* | *−1,380* | *−475* | *−2,650* | 11,579 | 17,855 | | 27,845 |
| 10. Long-term debt | 53,573 | *−24,054* | *−72,891* | *−41,241* | *−73,585* | *−16,034* | *−33,317* | *−34,168* | 108,549 | *−133,168* |
| 11. Short-term notes | 10,555 | 2,122 | *−2,647* | *−2,480* | 9,031 | 4,729 | 2,867 | *−2,105* | *−14,512* | 7,560 |
| 12. Other current liabilities | *−37,996* | *−32,356* | *−1,824* | 21,812 | 1,116 | 15,087 | 35,990 | 49,279 | *−33,404* | 20,701 |
| 13. Residual | *−21,017* | *−8,967* | *−14,361* | *−8,264* | *−16,560* | *−6,055* | *−10,045* | 9,152 | 9,377 | *−66,740* |
| ANALYSIS OF "UNDISTRIBUTED GROSS INCOME" | | | | | | | | | | |
| 14. Net income, adjusted | 106,189 | *−51,407* | 39,913 | 32,922 | 68,960 | 116,075 | 186,633 | 266,809 | 146,813 | 912,907 |
| 15. Minus, dividends paid | *111,877* | *90,426* | *58,154* | *42,008* | *48,490* | *51,414* | *89,180* | *127,940* | *106,993* | *726,482* |
| 16. Plus, depreciation allowances | 254,708 | 226,240 | 197,358 | 185,153 | 184,646 | 198,266 | 207,290 | 228,227 | 240,428 | 1,922,317 |

Source and Notes; See "Exhibit No. 592" for 56 industrial companies.

*Sources and uses of funds—1930–38—7 automobile companies*

[Net sources in roman. Net uses in italic]

[In thousands of dollars]

| | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | 9-year totals |
|---|---|---|---|---|---|---|---|---|---|---|
| USES | | | | | | | | | | |
| 1. Capital expenditures [1] | *29,606* | *16,550* | *14,659* | *18,323* | *36,428* | *64,763* | *103,872* | *92,416* | *53,504* | *430,121* |
| 2. Increase in investments | −223 | *4,698* | −929 | *20,402* | −1,672 | *10,255* | *4,308* | *11,492* | *4,927* | *53,258* |
| 3. Increase in inventories | −77,607 | −51,100 | −42,954 | *56,683* | *26,716* | *73,114* | *52,977* | *53,747* | −102,336 | −10,760 |
| 4. Increase in receivables | −27,186 | −8,278 | −16,706 | −9,883 | *27,899* | *37,465* | *23,792* | −24,354 | *13,942* | *16,691* |
| 5. Increase in marketable securities | *11,800* | *61,691* | −96,229 | *22,857* | −15,594 | −26,450 | *6,574* | −4,839 | *49,148* | 8,958 |
| 6. Increase in cash | *41,243* | −34,767 | *52,198* | −28,093 | *10,260* | *73,168* | −2,486 | −71,216 | *72,828* | *113,135* |
| SOURCES | | | | | | | | | | |
| 7. "Undistributed gross income" | 47,167 | *−8,089* | *−42,363* | 58,056 | 54,251 | 151,327 | 104,788 | 93,941 | 104,673 | 563,751 |
| 8. Common stock [2] | 6,280 | 1,041 | *−1,075* | *−3,052* | *−2,983* | 6,837 | 31,000 | 15,245 | 1,604 | 54,897 |
| 9. Preferred stock | *−49* | *−1,438* | *−703* | *−100* | | | | | | *−2,290* |
| 10. Long-term debt | *−2,385* | *−3,410* | *−3,340* | *−2,845* | *−10,553* | *−20,811* | *−6,426* | *−1,341* | *−1,284* | *−52,395* |
| 11. Short-term notes | *−2,000* | | | 1,000 | 800 | 3,200 | *−4,000* | 4,800 | *−5,900* | *−1,500* |
| 12. Other current liabilities | *−63,862* | *−1,460* | *−21,185* | 25,398 | 33,022 | 84,998 | 52,852 | *−74,007* | 1,670 | 37,426 |
| 13. Residual | *−7,518* | 2,150 | *−21,295* | 1,832 | 9,500 | 6,764 | 10,823 | 18,608 | *9,350* | 11,514 |
| ANALYSIS OF "UNDISTRIBUTED GROSS INCOME" | | | | | | | | | | |
| 14. Net income, adjusted | 156,525 | 85,300 | *−28,737* | 76,619 | 81,420 | 205,441 | 311,060 | 249,164 | 122,098 | 1,258,890 |
| 15. Minus, eividends paid | *173,029* | *154,666* | *71,406* | *67,974* | *79,703* | *114,920* | *266,953* | *221,165* | *83,423* | *1,233,239* |
| 16. Plus, depreciation allowances [3] | 63,671 | 61,278 | 57,781 | 49,411 | 52,535 | 60,806 | 60,681 | 65,941 | 66,000 | 538,104 |

[1] Excludes tool and die expenditures (except Chrysler).

[2] Includes transactions in General Motors Management Corporation securities as well as in reacquired stock of General Motors. (Bonus payments in stock are treated as a sale of stock and a concurrent payment of bonus in cash. Latter transaction remains as a charge against income.)

[3] Excludes amortization of tool and die expenditures (except Chrysler).

Source and Notes: See "Exhibit No. 592" for 56 industrial companies.

## Exhibit No. 594

*Sources and uses of funds—1930–1938—9 steel companies*

[Net sources in roman. Net uses in italic]

[In thousands of dollars]

| | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | 9-year total |
|---|---|---|---|---|---|---|---|---|---|---|
| USES | | | | | | | | | | |
| 1. Capital expenditures | *266,830* | *120,575* | *20,012* | *25,853* | *34,958* | *102,765* | *166,865* | *269,903* | *110,871* | *1,118,632* |
| 2. Increase in investments | *123,698* | *45,170* | −2,795 | *499* | −7,424 | *1,721* | *1,008* | −1,130 | *12,111* | *172,858* |
| 3. Increase in inventories | *26,452* | −52,337 | −84,469 | −6,978 | *11,655* | *28,422* | *71,653* | *110,934* | −46,809 | *58,523* |
| 4. Increase in receivables | −58,980 | −41,828 | −34,556 | *33,841* | −3,685 | *28,699* | *59,773* | −26,938 | *722* | −42,962 |
| 5. Increase in marketable securities | −65,694 | −19,264 | −38,001 | *2,724* | −775 | −15,068 | −25,060 | −2,062 | −27,488 | −190,688 |
| 6. Increase in cash | −35,762 | −45,238 | −14,748 | −13,225 | *24,950* | *20,193* | *41,317* | −56,843 | *90,426* | *11,070* |
| SOURCES | | | | | | | | | | |
| 7. "Undistributed gross income" | 124,599 | *−2,408* | *−71,832* | 20,135 | 60,646 | 113,839 | 148,643 | 193,493 | 62,627 | 649,742 |
| 8. Common stock | 106,382 | 14,489 | *−5,004* | 8,620 | 885 | 16,222 | 40,775 | 28,505 | 1,343 | 212,217 |
| 9. Preferred stock | 1,989 | *−6,203* | *−686* | *−95* | *−167* | *−135* | 7 | 41,827 | *−107* | 36,430 |
| 10. Long-term debt | 25,027 | 67,946 | *−24,224* | *−16,234* | *−14,596* | *−14,959* | 53,213 | *−1,902* | 157,843 | 232,114 |
| 11. Short-term notes | } *−32,490* | *−83,300* | *−40,047* | 24,612 | 11,812 | { *−234* | 647 | 11,149 | *−14,584* | } *−68,443* |
| 12. Other current liabilities | | | | | | 41,884 | 64,656 | 12,028 | *−64,576* | |
| 13. Residual | 31,037 | 16,554 | *−12,774* | 5,676 | 1,099 | 10,115 | 7,615 | 8,764 | *−2,713* | 65,373 |
| ANALYSIS OF "UNDISTRIBUTED GROSS INCOME" | | | | | | | | | | |
| 14. Net income, adjusted | 165,400 | 1,077 | *−124,104* | *−57,267* | *15,830* | 37,227 | 121,333 | 193,949 | *−149* | 321,636 |
| 15. Minus, dividends paid | *146,502* | *94,477* | *27,537* | *8,994* | *11,597* | *19,350* | *88,813* | *125,543* | *42,375* | *565,168* |
| 16. Plus, depreciation allowances | 105,699 | 90,990 | 79,807 | 86,396 | 88,072 | 95,962 | 116,123 | 125,089 | 105,152 | 893,290 |

Source and Notes: See "Exhibit No. 592" for 56 industrial companies.

*Distribution of Compiled Net Profits and Undistributed Gross Income (Undistributed Profits Plus Depreciation and Depletion), by Corporations Classified Into 9 Size Groups, 1931–1935*

[Millions of Dollars]

| Asset Group [3] [Thousands of dollars] | 1931 | | 1932 | | 1933 | | 1934 | | 1935 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Compiled Net Profits [1] | Undistributed Gross Income [2] | Compiled Net Profits [1] | Undistributed Gross Income [2] | Compiled Net Profits [1] | Undistributed Gross Income [2] | Compiled Net Profits [1] | Undistributed Gross Income [2] | Compiled Net Profits [1] | Undistributed Gross Income [2] |
| Under 50 | −412 | −349 | −609 | −513 | −377 | −295 | −250 | −226 | −183 | −125 |
| 50–100 | −214 | −160 | −312 | −248 | −113 | −57 | −47 | −5 | −10 | 15 |
| 100–250 | −340 | −278 | −484 | −378 | −188 | −87 | −28 | 18 | 72 | 77 |
| 250–500 | −251 | −231 | −379 | −307 | −129 | −56 | 21 | 33 | 132 | 105 |
| 500–1,000 | −252 | −251 | −395 | −339 | −101 | −38 | 55 | 20 | 178 | 93 |
| 1–5,000 | −539 | −654 | −834 | −752 | −258 | −173 | 290 | 100 | 674 | 281 |
| 5–10,000 | −138 | −275 | −335 | −350 | −110 | −105 | 172 | 50 | 343 | 132 |
| 10–50,000 | −36 | −376 | −495 | −572 | −68 | −179 | 748 | 227 | 1,202 | 429 |
| Over 50,000 | 1,694 | −206 | 332 | −323 | 706 | 511 | 2,080 | 1,009 | 3,093 | 1,488 |
| All | −487 | −2,778 | −3,511 | −3,781 | −639 | −481 | 3,042 | 1,231 | 5,500 | 2,493 |
| All Reporting | −777 | −3,056 | −3,829 | −4,061 | −930 | −739 | 2,975 | 1,164 | 4,688 | 2,448 |

[1] Compiled net profits are equal to total compiled receipts minus total compiled deductions.
[2] Undistributed gross income equals undistributed profits plus depreciation and depletion. Undistributed profits are equal to compiled net profits minus income and excess profit taxes paid and minus cash dividends paid.
[3] The asset groups used in this table are those used in Statistics of Income.

Source: *Statistics of Income.*

EXHIBIT No. 596

*Adjusted undistributed profits plus depreciation and depletion allowances for corporations with assets of less than $50,000—1931–1935*

[Millions of dollars]

| Year | (1) Undistributed Profits plus Depreciation and Depletion | (2) Estimated Omission from (1) | (3) Adjusted Undistributed Profits plus Depreciation and Depletion (1) plus (2) |
|---|---|---|---|
| 1931 | −349 | −278 | −627 |
| 1932 | −513 | −280 | −793 |
| 1933 | −295 | −257 | −552 |
| 1934 | −226 | −67 | −293 |
| 1935 | −125 | −44 | −169 |

NOTE.—The totals in Column (1) are the compiled net profits or losses, minus income and excess profits paid, minus cash dividends paid, plus depreciation and depletion. Column (1) is undistributed profits plus depreciation and depletion for those corporations having less than $50,900 in assets which filed balance sheets with their income tax returns. There are, however, corporations which file income tax returns without balance sheets. It has been considered probable that these corporations have less than $50,000 of assets. In order, therefore, to include these corporations in the group of corporations having less than $50,000 in assets, the difference between the totals of undistributed profits plus depreciation and depletion of all reporting corporations, and for all corporations filing balance sheets with their returns has been computed and tabulated in Column (2).

Source: *Statistics of Income.*

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EXHIBIT No. 597

Chairman, Board of Directors

UNITED STATES STEEL CORPORATION,
*71 Broadway, New York, May 19, 1939.*

Honorable JOSEPH C. O'MAHONEY,
*Chairman, Temporary National Economic Committee,*
*Senate Office Building, Washington, D. C.*

MY DEAR SENATOR O'MAHONEY: At the conclusion of my testimony before the Temporary National Economic Committee on May 17th you inquired: "What is the effect, or what has been the effect, of modernization upon the number of employees who work for wages?" The answer to that question was not as full and complete as it should have been to tell the true story.

Although labor-saving machines, where introduced in the Corporation's plants, do displace hand labor and turn out more product per hour with a smaller number of operators than was formerly the case, the fact is that the installation of labor-saving machinery has not resulted in a reduction of the number of employees as a whole. At corresponding rates of operation the subsidiaries of the Steel Corporation are employing more men at higher rates of pay and with shorter hours of work than ever before in its history. For example, in 1929, when the Corporation produced over 15,000,000 tons of rolled and finished steel products, it employed 253,138 men whose average earnings were $31.69, the average number of hours worked being 46 hours per week; in 1937, when production was less than 13,000,000 tons, the Corporation employed 261,293 men whose average earnings were $32.51, the average number of hours worked being 38 hours per week.

The explanation of the increase in the number of employees is that hours of labor have been shortened and adaptation of the product to consumer requirements has necessitated further processing with additional man-hours of work. Furthermore, rates of pay have been increased and much of the very arduous hand labor formerly involved has been shifted to the machine, with the net result that at comparable output a larger number of employees now enjoy better working conditions and higher earnings than before.

This does not take into account the indirect increases in general employment both in the manufacture of new equipment and in the subsequent processing of the improved steel products, which have in fact opened up many new fields and extended old fields of employment.

Many of the products manufactured by the former methods could not be sold today in competition with the superior products now made.

In view of the incompleteness of the answer to your question, I respectfully request that this letter may be read into, and made part of, the record.

Very truly yours,

E. R. STETTINIUS, Jr.

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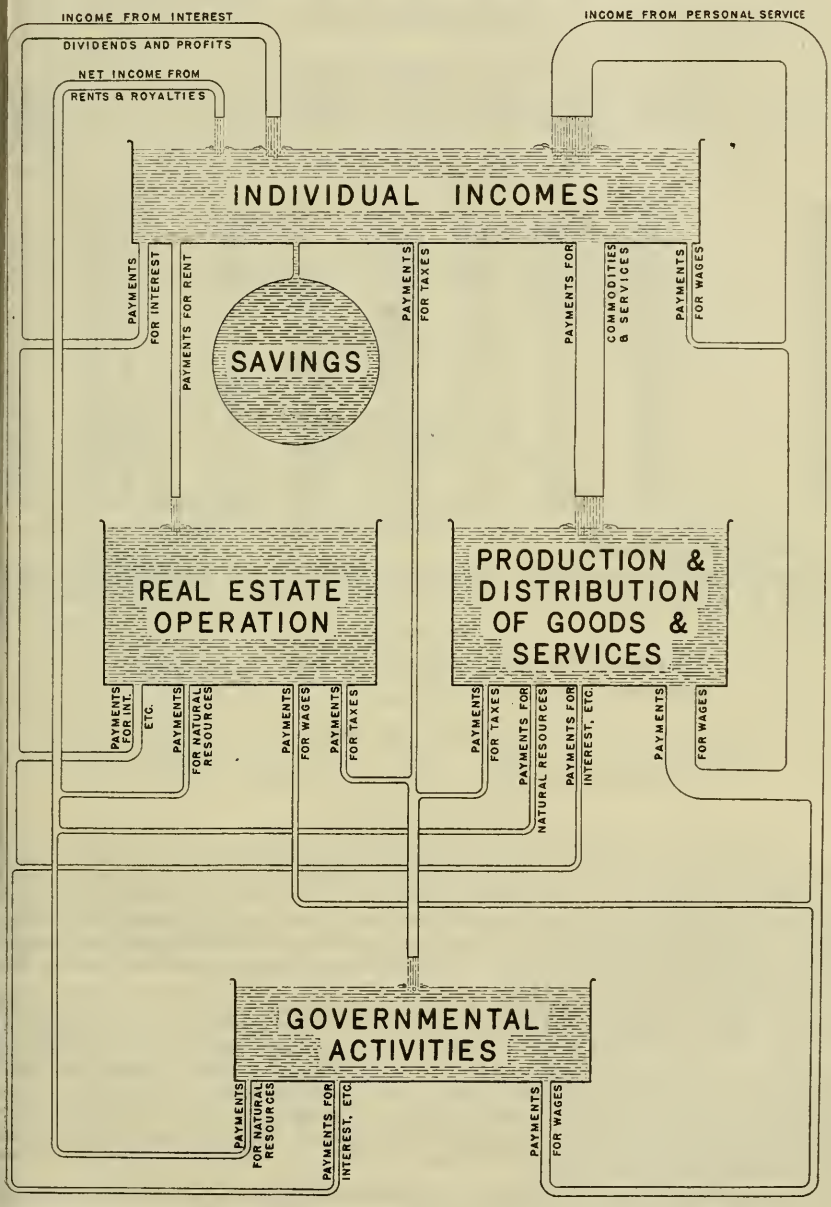
"EXHIBIT No. 598" appears in the appendix to Hearings, Part V, p. 2299

EXHIBIT No. 599

# FLOW OF MONEY INCOME AND EXPENDITURE

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PREPARED BY SEC. & EXCH. COMM.

"EXHIBIT No. 600" appears in text facing p. 3727

## EXHIBIT No. 601

[Charts based on following data, "Exhibits Nos. 601 and 602," appear in text on pp. 3735 and 3738]

*Assets of principal savings institutions in United States, 1920–1938*

[Amounts in millions of dollars]

| Year | Life Insurance Assets [1] (1) | Commercial Banks, Time Deposits (2) | Mutual Savings Banks Assets (3) | Building & Loan Association Assets (4) | Governmental Pension & Trust Funds (5) | Postal Savings (6) | Baby Bonds (7) | Total | Annual Increases or Decreases in the Total |
|---|---|---|---|---|---|---|---|---|---|
| 1920 | 7,646 | 10,005 | 5,619 | 2,534 | 246 | 157 | ..... | 26,207 | ..... |
| 1921 | 8,263 | 10,883 | 6,040 | 2,891 | 335 | 152 | ..... | 28,564 | +2,357 |
| 1922 | 8,992 | 11,717 | 6,352 | 3,343 | 444 | 138 | ..... | 30,986 | +2,422 |
| 1923 | 9,945 | 13,391 | 6,905 | 3,943 | 559 | 132 | ..... | 34,875 | +3,889 |
| 1924 | 10,950 | 14,399 | 7,365 | 4,766 | 679 | 133 | ..... | 38,302 | +3,427 |
| 1925 | 12,166 | 15,884 | 7,913 | 5,509 | 830 | 132 | ..... | 42,434 | +4,132 |
| 1926 | 13,600 | 17,070 | 8,422 | 6,334 | 993 | 134 | ..... | 46,553 | +4,119 |
| 1927 | 15,152 | 17,936 | 9,011 | 7,156 | 1,174 | 147 | ..... | 50,576 | +4,023 |
| 1928 | 16,785 | 19,626 | 9,688 | 8,016 | 1,420 | 152 | ..... | 55,687 | +5,111 |
| 1929 | 18,316 | 19,187 | 10,006 | 8,695 | 1,675 | 154 | ..... | 58,033 | +2,346 |
| 1930 | 19,762 | 19,125 | 10,295 | 8,824 | 1,929 | 175 | ..... | 60,110 | +2,007 |
| 1931 | 21,055 | 17,880 | 11,192 | 8,412 | 2,179 | 347 | ..... | 61,065 | +955 |
| 1932 | 21,636 | 13,559 | 11,134 | 7,745 | 2,418 | 785 | ..... | 57,277 | −3,788 |
| 1933 | 21,802 | 10,389 | 10,967 | 6,972 | 2,671 | 1,187 | ..... | 53,988 | −3,289 |
| 1934 | 22,805 | 11,255 | 11,065 | 6,445 | 2,918 | 1,198 | ..... | 55,686 | +1,698 |
| 1935 | 24,210 | 12,357 | 11,173 | 5,884 | 3,208 | 1,205 | 62 | 58,099 | +2,413 |
| 1936 | 25,913 | 13,250 | 11,409 | 5,620 | 3,574 | 1,232 | 316 | 61,314 | +3,215 |
| 1937 | 27,347 | 14,193 | 11,645 | 5,706 | 5,025 | 1,268 | 800 | 65,984 | +4,670 |
| 1938 | 28,775 | 14,359 | 11,572 | 5,712 | 6,169 | 1,252 | 1,238 | 69,077 | +3,093 |

[1] Including fraternal associations.

Sources: (1), (2), (3), (4), (6) Statistical Abstract of the United States. (5) Data for 1937 from a study made by the U. S. Treasury Department. Data for other years estimated. (7) Annual Reports of the Secretary of the Treasury.

"EXHIBIT No. 602" appears in text on p. 3738

## EXHIBIT No. 603

### THE CLEVELAND TRUST COMPANY BUSINESS BULLETIN

#### LIFE INSURANCE

Americans appear to have been changing their ideas about life insurance during the past six years. For many years prior to 1932 we have been spending steadily increasing proportions of our national income for ordinary, individual insurance policies, but since 1932 those expenditures have been rapidly decreasing. They have been getting smaller year by year as proportions of our national income, and even in actual totals of dollars. Some of these changes are illustrated in the diagram at the foot of this page.

The heavy solid line represents for the 20 years since 1919 the totals of new ordinary life insurance written in this country. The amounts are in billions of dollars. They were nearly six billions in 1919, and increased to over 11 billions in 1929. Then they declined to less than seven billions in 1933, increased to 1937, and fell to just over six billions in 1938. Just below the heavy solid line there is a dashed line representing national income. The unit for this line is 10 billion dollars, so that it indicates that national income in 1919 was about 60 billions, and that it increased to nearly 80 billions by 1929. In 1937 it was over 69 billions and in 1938 almost 65 billions.

The uppermost line in the diagram represents the percentages that the amounts of new ordinary life insurance written each year were of the national income in each year. In 1919 the new insurance written was almost 10 percent as great as the national income. The percentage relationship increased almost steadily to 1929

when it was over 14 percent. Then the great depression began, but people continued to devote increasing proportions of their incomes to the purchase of life insurance, and by 1932 the new ordinary insurance written was 15.4 percent as great as our national income in that year.

An important change got under way in 1933, and it has continued ever since. From 1932 to 1938 the new insurance written has fallen from being equal to 15.4 percent of our national income to the low level reached last year, when it was only 9.4 percent of the income. Measured in terms of the relationship to national income the decline from 15.4 to 9.4 is a fall of approximately 40 percent in six years. Even measured in dollars the amount written last year is smaller than that of any year since 1921.

Representatives of life-insurance companies offer two chief explanations of these developments. One is that people have too little faith in the future value of the dollar to be willing to make present sacrifices in return for payments which will be received many years hence. The other explanation is that people consider present thrift unnecessary because they think the government will always take care of everybody through social security and relief payments.

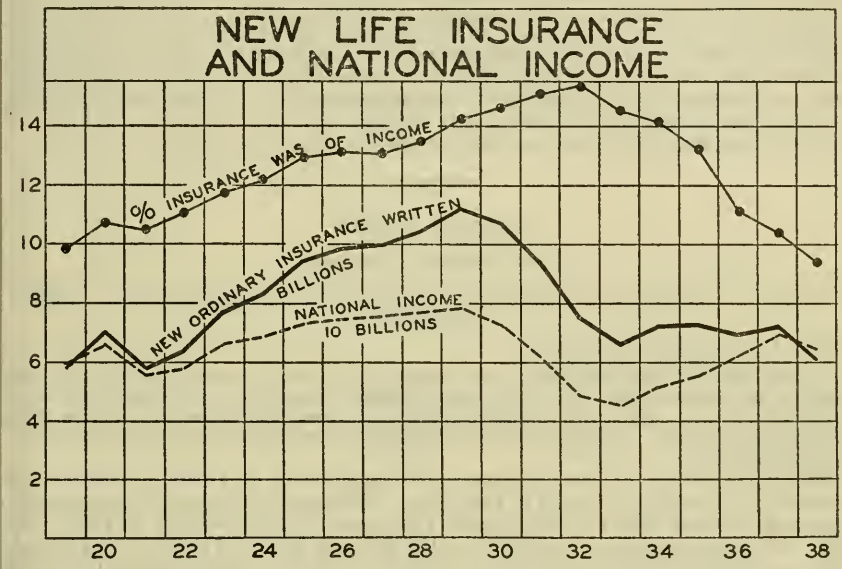


EXHIBIT No. 604

[From N. Y. Herald Tribune, April 6, 1939]

THE ECLIPSE OF SAVING

It is a commonplace that the last five or six years have witnessed a marked decline in the spirit of thrift in this country, but few persons, probably, realize the extent of this changed public attitude toward saving. For those who are only vaguely aware of the existence of the phenomenon there is food for study and thought in the current issue of the Cleveland Trust Company Bulletin, which brings out graphically the extent of the recent contraction in the volume of new life insurance.

In the decade, 1919–29, this article by Col. Leonard P. Ayres shows, the volume of new ordinary insurance written showed a steady increase, which carried it from slightly less than $6 billions to over 11 billions. When the national income, which in that period had climbed from $60 billions to a little more than 80 billions, turned downward in 1929 the volume of new insurance did likewise, falling to less than $7 billions in 1933. This was, of course, more or less to have been expected. What could not well have been foreseen in 1933, however, was that in the next five years, while the national income was expanding from less than $50 billions to between 65 and 69 billions, the volume of new insurance would show an actual

decline. For 1938 it had fallen to $6 billions, or a billion dollars under the depression low reached in 1933. This was the smallest dollar total since 1921. When the dollar figures are translated into percentage of national income the result is even more striking. For the period 1929–32 the average ratio of new insurance to the national income was 15.4 percent; by 1938 it had fallen to 9.4 percent, a drop of approximately 40 percent.

It should be observed in passing, perhaps, that these figures do not necessarily reflect a decline in the popularity of insurance as against other forms of savings. We find much the same situation when we turn to the savings banks. Deposits for all mutual savings banks in the country show a rise, it is true, between 1933 and 1938 from $9.7 billions to 10.3 billions, in round figures. But these totals include interest accumulations, as well as new deposits. When the interest increment is allowed for it is found that in spite of the growth of population and in spite of the increase in the national income savings have shown a very substantial decline for this period.

What are the reasons for this changed attitude toward thrift? Col. Ayres goes into that, too. He has canvassed life insurance representatives, and has found that they offer two explanations: One is that "people have too little faith in the value of the dollar to make present sacrifices in return for payments due many years hence;" the other is that "people consider present thrift unnecessary because they think the government will take care of them through social security and relief payments." A third reason, if we may hazard it, has been the rise in favor at Washington in the last few years of a number of young economists who not only have preached the gospel that saving—whether private or public—is a vice but have even contrived to write this philosophy into the laws of the land.

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EXHIBIT NO. 605

THE ECLIPSE OF SAVING

PRESIDENT OF A LIFE INSURANCE COMPANY DOUBTS ACCURACY OF COL. AYRES'S CONCLUSIONS

*To the New York Herald Tribune:*

In the light of your editorial The Eclipse of Saving, I would point out that some of us believe that Col. Ayres has reached conclusions which quite distort the true picture. He limits his investigation to new insurance and relates it to the national income. Estimating the figures from his chart, we reach the following conclusions:

The face amount of new ordinary insurance issued in 1919 represented 9.8 percent of the national income in that year. Following 1919 there was, generally speaking, a rising trend which carried the figure to 14.2 percent in 1929. By 1937 the percentage had declined to 10.4 percent and in 1938 to 9.4 percent. This would, indeed, seem to indicate a decline in the appreciation of life insurance to a point actually below that of nearly twenty years ago. In our judgment this conclusion is quite misleading.

Life insurance differs from most other things purchased by the public in that almost all of it requires the payment year after year of renewal premiums if the insurance is to remain in force. As national income falls, the margins of income available for savings decline sharply and policyholders find difficulty in maintaining the insurance they already have in force. Under such conditions a measure of their confidence in the institution of life insurance would more properly be the relation to national income of the total amount of premiums being paid to life-insurance companies.

In obtaining figures on the proposed basis we are not able to separate ordinary life-insurance premiums from those paid on group and industrial insurance. Accordingly, we have taken total insurance premium income (excluding annuities), less dividends paid to policyholders, and related the net to national income. The latest figures for premium income are for 1937. In 1919 we find that premium income amounted to 1.7 percent of national income. In 1929 and 1937 the figures were 3.5 and 4.2 percent, respectively. These figures tell an entirely different story from the ones Col. Ayres has derived and are, we believe, a much more reliable guide to the facts. In actual dollars the amounts of net life-insurance premiums for the three years are 1.02, 2.74, and 2.92 billions, respectively.

Speaking of inflation as a deterrent to the purchase of life insurance, it is interesting to note that commencing 1933 there was a noticeable increase in the

buying of annuities. In 1934 the $414,000,000 of new annuity premiums were more than double the 1932 figure, and the high level was maintained through 1937, despite the raising of annuity premiums and the restrictions adopted by life-insurance companies to prevent policyholders from giving the companies huge sums which could not be handled satisfactorily because of the decline in the interest rates on new investments. Such fear of inflation as may have resulted from the fiscal policies of the government has not become evident in life-insurance premium receipts.

One point should be mentioned in passing. Col. Ayres's figures reached a peak in 1932. The figures based upon total premiums paid show the same general tendency. Conclusions based upon either phenomenon must be drawn with great caution. In the depths of the depression much new insurance was taken out upon the surrender of existing insurance and the new premiums were paid out of the proceeds of the surrender. Furthermore, a large amount of existing insurance was maintained in force by borrowing against cash values. Hence an appreciable, but still unknown, proportion of the new insurance issued and of total premium income did not represent actual new money paid by policyholders but represented what were in essence bookkeeping entries.

When all the facts are taken into consideration, I think it will be found that the confidence in life insurance is close to an all-time high. Should the national income reach the much-desired level of $80,000,000,000 on a price-level basis comparable with the present, people will have greatly increased margins for savings and I anticipate a large increase in the sale of new life insurance.

M. A. LINTON,
*President, Provident Mutual Life Insurance Co. of Philadelphia.*

PHILADELPHIA, *April 12, 1939.*

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EXHIBIT No. 606

*Premium income, total income, and adjusted increase in the assets of all life-insurance companies, in relation to national income, 1920–1937*

| Year | Premium Income | Total Income | Increase in Assets Adjusted for Change in Policy Loans | National Income | Percentage to National Income of— | | |
|---|---|---|---|---|---|---|---|
| | | | | | Premium Income | Total Income | Increase in Assets Adjusted for Change in Policy Loans |
| | *Millions* | *Millions* | *Millions* | *Billions* | | | |
| 1920 | 1,385 | 1,764 | 507 | 68.1 | 2.03 | 2.59 | 0.74 |
| 1921 | 1,537 | 1,951 | 417 | 50.7 | 3.03 | 3.85 | .82 |
| 1922 | 1,686 | 2,149 | 633 | 58.7 | 2.87 | 3.66 | 1.08 |
| 1923 | 1,900 | 2,427 | 745 | 68.0 | 2.79 | 3.57 | 1.10 |
| 1924 | 2,122 | 2,703 | 837 | 67.9 | 3.13 | 3.98 | 1.23 |
| 1925 | 2,384 | 3,018 | 1,021 | 72.8 | 3.27 | 4.15 | 1.40 |
| 1926 | 2,624 | 3,330 | 1,248 | 75.0 | 3.50 | 4.44 | 1.66 |
| 1927 | 2,874 | 3,673 | 1,266 | 73.8 | 3.89 | 4.98 | 1.72 |
| 1928 | 3,146 | 4,088 | 1,354 | 77.6 | 4.05 | 5.27 | 1.74 |
| 1929 | 3,350 | 4,337 | 1,142 | 81.1 | 4.13 | 5.35 | 1.41 |
| 1930 | 3,524 | 4,594 | 970 | 68.3 | 5.16 | 6.73 | 1.42 |
| 1931 | 3,661 | 4,850 | 718 | 53.8 | 6.80 | 9.01 | 1.33 |
| 1932 | 3,504 | 4,653 | 158 | 40.0 | 8.76 | 11.63 | .40 |
| 1933 | 3,322 | 4,622 | 178 | 42.3 | 7.85 | 10.93 | .42 |
| 1934 | 3,521 | 4,786 | 1,060 | 50.1 | 7.03 | 9.55 | 2.12 |
| 1935 | 3,692 | 5,072 | 1,491 | 55.2 | 6.69 | 9.10 | 2.70 |
| 1936 | 3,683 | 5,180 | 1,786 | 63.5 | 5.80 | 8.16 | 2.81 |
| 1937 | 3,762 | 5,257 | 1,386 | 69.8 | 5.39 | 7.53 | 1.99 |

Sources: The series for premium income and total income refer to all life-insurance companies in the United States, as reported in the *Insurance Year Books* published by the Spectator Company.

The increase in life-insurance assets excluding policy loans refers to the increase in the assets of all life-insurance companies after exclusion of policy loans, as reported in the *Insurance Year Books* published by the Spectator Company.

The series on the National income consist of data compiled by the United States Department of Commerce for the period 1929–1938 and by Simon Kuznets in *National Income and Capital Formation, 1919–1935*, for the period 1919–1928, spliced into a reasonably comparable series by the Department of Commerce.

## Exhibit No. 607

[Chart based on following statistical data appears in text on p. 3746]

*Loans and investments of all member banks of the Federal Reserve System, 1921–1938*

[Amounts in billions of dollars]

| Year | Short time loans | | | Investments | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|
| | Commercial Loans | Security Loans | Subtotal | Real Estate Loans | Investments in Other Securities | Investments in all U. S. Government Obligations | Subtotal | |
| 1921 | 12,584 | 4,400 | 16,984 | 1,135 | 3,441 | 2,561 | 7,137 | 24,121 |
| 1922 | 11,233 | 4,500 | 15,733 | 1,432 | 3,812 | 3,205 | 8,449 | 24,182 |
| 1923 | 12,051 | 4,900 | 16,951 | 1,749 | 3,922 | 3,835 | 9,506 | 26,457 |
| 1924 | 11,874 | 5,350 | 17,224 | 1,980 | 4,387 | 3,575 | 9,942 | 27,166 |
| 1925 | 11,598 | 6,718 | 18,316 | 2,339 | 5,082 | 3,780 | 11,201 | 29,517 |
| 1926 | 12,089 | 7,321 | 19,410 | 2,650 | 5,378 | 3,745 | 11,773 | 31,183 |
| 1927 | 11,856 | 8,156 | 20,012 | 2,926 | 6,022 | 3,796 | 12,744 | 32,756 |
| 1928 | 12,167 | 9,068 | 21,235 | 3,068 | 6,534 | 4,225 | 13,827 | 35,062 |
| 1929 | 12,735 | 9,759 | 22,494 | 3,164 | 5,898 | 4,155 | 13,217 | 35,711 |
| 1930 | 11,632 | 10,426 | 22,058 | 3,155 | 6,380 | 4,061 | 13,596 | 35,654 |
| 1931 | 10,265 | 8,334 | 18,599 | 3,218 | 6,763 | 5,343 | 15,324 | 33,923 |
| 1932 | 8,123 | 5,570 | 13,693 | 2,893 | 5,786 | 5,628 | 14,307 | 28,000 |
| 1933 | 5,782 | 4,705 | 10,487 | 2,372 | 5,041 | 6,887 | 14,300 | 24,787 |
| 1934 | 5,568 | 4,599 | 10,167 | 2,356 | 5,515 | 9,136 | 17,007 | 27,174 |
| 1935 | 5,553 | 4,098 | 9,651 | 2,278 | 6,985 | 9,871 | 19,134 | 28,785 |
| 1936 | 5,993 | 4,208 | 10,201 | 2,340 | 7,995 | 11,721 | 22,056 | 32,257 |
| 1937 | 7,414 | 4,365 | 11,779 | 2,505 | 5,765 | 12,689 | 20,959 | 32,738 |
| 1938 | 7,008 | 3,315 | 10,323 | 2,613 | 5,440 | 12,343 | 20,396 | 30,719 |
| PERCENTAGES OF GRAND TOTAL | | | | | | | | |
| 1921 | 52.2 | 18.2 | 70.4 | 4.7 | 14.3 | 10.6 | 29.6 | 100.0 |
| 1922 | 46.5 | 18.6 | 65.1 | 5.9 | 15.8 | 13.2 | 34.9 | 100.0 |
| 1923 | 45.6 | 18.5 | 64.1 | 6.6 | 14.8 | 14.5 | 35.9 | 100.0 |
| 1924 | 43.7 | 19.7 | 63.4 | 7.3 | 16.1 | 13.2 | 36.6 | 100.0 |
| 1925 | 39.3 | 22.8 | 62.1 | 7.9 | 17.2 | 12.8 | 37.9 | 100.0 |
| 1926 | 38.8 | 23.5 | 62.3 | 8.5 | 17.2 | 12.0 | 37.7 | 100.0 |
| 1927 | 36.2 | 24.9 | 61.1 | 8.9 | 18.4 | 11.6 | 38.9 | 100.0 |
| 1928 | 34.7 | 25.9 | 60.6 | 8.8 | 18.6 | 12.0 | 39.4 | 100.0 |
| 1929 | 35.7 | 27.3 | 63.0 | 8.9 | 16.5 | 11.6 | 37.0 | 100.0 |
| 1930 | 32.6 | 29.3 | 61.9 | 8.8 | 17.9 | 11.4 | 38.1 | 100.0 |
| 1931 | 30.2 | 24.6 | 54.8 | 9.5 | 19.9 | 15.8 | 45.2 | 100.0 |
| 1932 | 29.0 | 19.9 | 48.9 | 10.3 | 20.7 | 20.1 | 51.1 | 100.0 |
| 1933 | 23.3 | 19.0 | 42.3 | 9.6 | 20.3 | 27.8 | 57.7 | 100.0 |
| 1934 | 20.5 | 16.9 | 37.4 | 8.7 | 20.3 | 33.6 | 62.6 | 100.0 |
| 1935 | 19.3 | 14.2 | 33.5 | 7.9 | 24.3 | 34.3 | 66.5 | 100.0 |
| 1936 | 18.6 | 13.0 | 31.6 | 7.3 | 24.8 | 36.3 | 68.4 | 100.0 |
| 1937 | 22.7 | 13.3 | 36.0 | 7.7 | 17.6 | 38.7 | 64.0 | 100.0 |
| 1938 | 22.8 | 10.8 | 33.6 | 8.5 | 17.7 | 40.2 | 66.4 | 100.0 |

Source: Board of Governors of the Federal Reserve System.

## EXHIBIT No. 608

[Chart based on following statistical data appears in text on p. 3752]

*Assets of life-insurance companies—Admitted assets of the 16 largest life-insurance companies in comparison with the admitted assets of all 308 companies reporting as of December 31, 1937—Arranged according to size of admitted assets to show extent of the concentration control in a few companies*

| Company | Home office | Admitted assets | | |
|---|---|---|---|---|
| | | In millions of dollars | As a percent of the total of 308 companies reporting | As a cumulative percentage of the total 308 companies reporting |
| Metropolitan Life | New York | 4,720 | 18.0 | 18.0 |
| Prudential Ins. Co | Newark, N. J | 3,584 | 13.7 | 31.7 |
| New York Life | New York | 2,520 | 9.6 | 41.3 |
| Equitable Life Assurance Society | New York | 2,106 | 8.0 | 49.3 |
| Mutual Life | New York | 1,349 | 5.1 | 54.4 |
| Subtotal | | 14,279 | 54.4 | |
| Northwestern Mutual | Milwaukee, Wis | 1,178 | 4.5 | 58.9 |
| Travelers Ins. Co | Hartford, Conn | 914 | 3.5 | 62.4 |
| John Hancock Mutual Life | Boston, Mass | 855 | 3.3 | 65.7 |
| Penn Mutual Life | Philadelphia, Pa | 668 | 2.5 | 68.2 |
| Mutual Benefit Life | Newark, N. J | 646 | 2.5 | 70.7 |
| Massachusetts Mutual | Springfield, Mass | 610 | 2.3 | 73.0 |
| Aetna Life | Hartford, Conn | 577 | 2.2 | 75.2 |
| New England Mutual | Boston, Mass | 402 | 1.5 | 76.7 |
| Union Central | Cincinnati, Ohio | 359 | 1.4 | 78.1 |
| Provident Mutual | Philadelphia, Pa | 331 | 1.3 | 79.4 |
| Connecticut Mutual | Hartford, Conn | 312 | 1.2 | 80.6 |
| Subtotal | | 6,852 | 26.2 | |
| Total of 16 largest companies | | 21,131 | 80.6 | 80.6 |
| All other companies (292 companies) | | 5,118 | 19.4 | 19.4 |
| Grand total (308 companies) | | 26,249 | 100.0 | 100.0 |

Source: The Spectator Insurance Year Book, 1938.

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*Assets of life insurance companies—Admitted assets of the 25 largest life insurance companies in comparison with the admitted assets of all 308 companies reporting as of December 31, 1937. Arranged according to location of home office to show extent of the geographical concentration of control*

| Region | Admitted assets | |
|---|---|---|
| | In millions of dollars | As a percent of the total of the 308 companies reporting |
| New York City and Newark, N. J.: | | |
| Metropolitan Life | 4,720 | 18.0 |
| Prudential Ins. Co. (Newark, N. J.) | 3,584 | 13.7 |
| New York Life | 2,520 | 9.6 |
| Equitable Life Assurance Society | 2,106 | 8.0 |
| Mutual Life | 1,349 | 5.1 |
| Mutual Benefit Life (Newark, N. J.) | 646 | 2.5 |
| Subtotal | 14,925 | 56.9 |

*Assets of life insurance companies—Admitted assets of the 25 largest life insurance companies in comparison with the admitted assets of all 308 companies reporting as of December 31, 1937. Arranged according to location of home office to show extent of the geographical concentration of control*—Continued

| Region | Admitted assets | |
|---|---|---|
| | In millions of dollars | As a percent of the total of the 308 companies reporting |
| New England: | | |
| Travelers Ins. Co | 914 | 3.5 |
| John Hancock Mutual Life | 855 | 3.3 |
| Massachusetts Mutual | 610 | 2.3 |
| Aetna Life | 577 | 2.2 |
| New England Mutual | 402 | 1.5 |
| Connecticut Mutual | 312 | 1.2 |
| Connecticut General | 227 | 0.9 |
| Phoenix Mutual | 223 | 0.85 |
| National Life | 196 | 0.75 |
| State Mutual | 176 | 0.7 |
| Subtotal | 4,492 | 17.2 |
| Pennsylvania: | | |
| Penn Mutual Life | 668 | 2.5 |
| Provident Mutual | 331 | 1.3 |
| Subtotal | 999 | 3.8 |
| Ohio and Indiana: | | |
| Union Central | 359 | 1.4 |
| Western & Southern | 164 | 0.6 |
| Lincoln National | 139 | 0.5 |
| Subtotal | 662 | 2.5 |
| California, Iowa, and Wisconsin: | | |
| Northwestern Mutual (Wisconsin) | 1,178 | 4.5 |
| Pacific Mutual (California) | 227 | 0.88 |
| Bankers Life (Iowa) | 216 | 0.82 |
| Equitable Life (Iowa) | 170 | 0.65 |
| Subtotal | 1,791 | 6.8 |
| Total (25 largest) | 22,869 | 87.2 |
| All others (283 companies wherever located) | 3,380 | 12.8 |
| Grand total, 308 companies | 26,249 | 100.0 |

Source: The Spectator Insurance Year Book, 1938.

*Consolidated balance sheet of the 308 legal reserve life insurance companies in the United States as of December 31, 1937*

| | Amounts | Percentages |
|---|---|---|
| ASSETS | | |
| Real Estate Owned | $2,190,494,006 | 8.35 |
| Real Estate Mortgages | 5,229,414,535 | 19.92 |
| Bonds Owned | 13,182,860,098 | 50.22 |
| Stocks Owned | 512,935,034 | 1.95 |
| Collateral Loans | 8,617,664 | .03 |
| Premium Notes and Loans | 3,399,483,894 | 12.95 |
| Cash in Office and Banks | 725,618,717 | 2.77 |
| Net Deferred Unpaid Premiums | 474,566,273 | 1.81 |
| All Other Assets | 525,058,998 | 2.00 |
| Total Admitted Assets | 26,249,049,219 | 100.00 |
| LIABILITIES | | |
| Reserve | 23,202,368,792 | 88.39 |
| Losses and Claims Not Paid | 111,026,406 | .42 |
| Claims Resisted | 17,580,781 | .07 |
| Dividends Unpaid and Left to Accumulate | 401,281,674 | 1.53 |
| Surplus Apportioned | 780,378,255 | 2.97 |
| All Other Liabilities | 571,704,470 | 2.18 |
| Surplus Including Capital | 1,164,708,841 | 4.44 |
| Total Liabilities | 26,249,049,219 | 100.00 |

Source: The Spectator Insurance Year Book, 1938.

EXHIBIT No. 609

[Chart based on following statistical data appears in text on p. 3759]

*Mutual savings banks in the United States—The twenty-five largest mutual savings banks in comparison with all mutual savings banks in the United States as of January 1, 1939, arranged by States to show geographical concentration of assets*

| State | Name and city | Assets | |
|---|---|---|---|
| | | In millions of dollars | In percentages of total |
| New York | New York City: | | |
| | Bowery Savings Bank | 583 | 5.04 |
| | Emigrant Industrial Savings Bank | 497 | 4.30 |
| | Williamsburgh Savings Bank | 264 | 2.28 |
| | The Bank for Savings | 240 | 2.07 |
| | Dime Savings Bank of Brooklyn | 227 | 1.96 |
| | Central Savings Bank | 223 | 1.93 |
| | Dry Dock Institution | 218 | 1.88 |
| | East River Savings Bank | 189 | 1.63 |
| | Greenwich Savings Bank | 176 | 1.52 |
| | Union Dime Savings Bank | 161 | 1.39 |
| | Seamen's Bank for Savings | 159 | 1.37 |
| | Lincoln Savings Bank | 131 | 1.13 |
| | Dollar Savings Bank | 120 | .04 |
| | Harlem Savings Bank | 111 | .96 |
| | Brooklyn Savings Bank | 108 | .93 |
| | Franklin Savings Bank | 96 | .83 |
| | Subtotal | 3,503 | 30.27 |
| | Buffalo: | | |
| | Buffalo Savings Bank | 114 | .99 |
| | Erie County Savings Bank | 101 | .87 |
| | Total, 18 in N. Y. State | 3,718 | 32.13 |
| Pennsylvania | Philadelphia: | | |
| | Philadelphia Saving Fund Society | 374 | 3.23 |
| | Western Saving Fund Soiecty of Philadelphia | 105 | .91 |
| | Total, 2 in Pennsylvania | 479 | 4.14 |
| Massachusetts | Boston: | | |
| | Boston 5¢ Savings Bank | 138 | 1.19 |
| | Provident Institution for Savings | 134 | 1.16 |
| | Total, 2 in Massachusetts | 272 | 2.35 |
| New Jersey | Newark: Howard Savings Institution | 107 | .92 |
| Ohio | Cleveland: Society for Savings | 121 | 1.05 |
| Maryland | Baltimore: Savings Bank of Baltimore | 106 | .92 |
| | Total of 25 Largest | 4,803 | 41.51 |
| | All Other Savings Banks (518) | 6,768 | 58.49 |
| | Grand total U. S | 11,571 | 100.00 |

Source: Directory Mutual Savings Banks of the U. S. Issued by National Association of Mutual Savings Banks (1939).

*Mutual savings banks in United States January 1, 1939*

| State | Number of banks | Assets | | |
|---|---|---|---|---|
| | | In millions | In percents | Cumulative in percents |
| New York | 134 | $6,207 | 53.64 | 53.64 |
| Massachusetts | 193 | 2,383 | 20.59 | 74.23 |
| Connecticut | 73 | 803 | 6.94 | 81.17 |
| Pennsylvania | 7 | 639 | 5.52 | 86.69 |
| New Jersey | 22 | 354 | 3.06 | 89.75 |
| Maryland | 12 | 249 | 2.15 | 91.90 |
| Rhode Island | 9 | 192 | 1.66 | 93.56 |
| New Hampshire | 34 | 186 | 1.61 | 95.17 |
| Maine | 32 | 144 | 1.24 | 96.41 |
| Ohio | 3 | 131 | 1.13 | 97.54 |
| 7 Other States | 24 | 283 | 2.45 | 99.99 |
| Total U. S | 543 | 11,571 | 100.00 | 100.00 |

Source: Directory of Mutual Savings Banks of the United States, January 1939.
Issued by National Association of Mutual Savings Banks, 60 East 42nd Street, New York City.

*Consolidated balance sheet of the Mutual Savings Banks of the United States, 1938*

| | | |
|---|---|---|
| ASSETS | | |
| Real Estate Mortgage Loans | $4,809,047,549 | 41.54% |
| Other Real Estate (including Foreclosed, in Possession, Real Estate under Contract, etc.) | 647,663,545 | 5.59 |
| Bank Building (including Furniture and Fixtures) | 130,422,083 | 1.13 |
| Government Bonds (including Direct Obligations, Guaranteed Obligations, Bonds of the H. O. L. C., F. H. A., Federal Land Bank, Federal Farm Mortgage Corp., Joint Stock Land Bank, etc | 2,836,408,740 | 24.50 |
| Cash on Hand and on Deposit in Banks | 572,489,782 | 4.95 |
| State and Municipal Bonds | 683,914,713 | 5.91 |
| Railroad Bonds (including Terminals and Equipments) | 923,581,217 | 7.98 |
| Public Utility Bonds (including Electric, Gas, Telephone, Water, Street Railway, etc.) | 547,640,909 | 4.73 |
| Canadian and Other Foreign Government Bonds | 68,501,046 | .59 |
| Industrial Corporation Bonds | 22,047,383 | .19 |
| Bank Stocks | 104,641,111 | .90 |
| Other Stocks | 12,242,781 | .11 |
| Loans on Collateral and Personal Loans | 57,376,480 | .50 |
| Loans to Municipalities and Other Corporations | 14,320,095 | .12 |
| Other Assets (including Advances for Taxes and Insurance, Interest Accrual, Bankers Acceptances, etc.) | 59,305,027 | .51 |
| Securities Acquired in Settlement of Indebtedness and under Agreement | 2,514,589 | .02 |
| Investment in Central Funds: (Deposit Insurance Funds, Savings Banks Trust Company of New York, Institutional Securities Corporation of New York, etc.) | 70,658,981 | .61 |
| Misc. Bond Investments (Sav. & Loan Bank & Port of N. Y. Auth.) | 14,427,718 | .12 |
| Total assets | $11,577,203,749 | 100.00% |
| LIABILITIES | | |
| Amount Due Depositors (including Christmas, School Savings, Tax Clubs, etc.) | $10,221,499,528 | 88.29% |
| Surplus and Undivided Profits (including Guaranty Fund, Profit and Loss, and Contingent Reserves) | 1,320,268,518 | 11.40 |
| Other Liabilities | 21,943,553 | .19 |
| Capital Debentures | 13,492,150 | .12 |
| Total liabilities | $11,577,203,749 | 100.00% |

NOTE.—Figures for all states are as of June 30, except Connecticut, which is September 30; Massachusetts, October 31; and New Jersey and New York, December 31.

(Compiled by: National Association of Mutual Savings Banks, 60 E. 42nd Street, New York.)

## EXHIBIT No. 610

[Chart based on following statistical data appears in text on p. 3762]

*Commercial banks in United States, December 31, 1938*

| State | Number of banks | Assets | | |
|---|---|---|---|---|
| | | In millions | In percent | Cumulative in percent |
| New York | 740 | 16,574 | 29.2 | 29.2 |
| Pennsylvania | 1,065 | 5,385 | 9.5 | 38.7 |
| Illinois | 839 | 4,720 | 8.3 | 47.0 |
| California | 203 | 4,501 | 7.9 | 54.9 |
| Ohio | 686 | 2,549 | 4.5 | 59.4 |
| Massachusetts | 193 | 2,107 | 3.7 | 63.1 |
| New Jersey | 373 | 1,900 | 3.4 | 66.5 |
| Missouri | 595 | 1,607 | 2.8 | 69.3 |
| Texas | 788 | 1,603 | 2.8 | 72.1 |
| Michigan | 433 | 1,541 | 2.7 | 74.8 |
| All Other | 7,741 | 14,305 | 25.2 | 100.0 |
| Total | 13,656 | 56,792 | 100.0 | 100.0 |

*Commercial banks in United States, December 31, 1938*—Continued

| State | Time deposits [1] | | |
|---|---|---|---|
| | Amounts in millions | In percent | Cumulative in percent |
| California | 2,250 | 15.3 | 15.3 |
| New York | 1,984 | 13.5 | 28.8 |
| Pennsylvania | 1,813 | 12.4 | 41.2 |
| Illinois | 1,012 | 6.9 | 48.1 |
| Ohio | 971 | 6.6 | 54.7 |
| New Jersey | 886 | 6.0 | 60.7 |
| Michigan | 613 | 4.2 | 64.9 |
| Wisconsin | 427 | 2.9 | 67.8 |
| Massachusetts | 389 | 2.7 | 70.5 |
| Minnesota | 320 | 2.2 | 72.7 |
| All Other | 4,004 | 27.3 | 100.0 |
| Total | 14,669 | 100.0 | 100.0 |

[1] Exclusive of interbank deposits.

Source: Federal Deposit Insurance Corporation—Based on all operating insured banks.

*Summary of assets and liabilities of operating insured commercial banks, United States possessions, December 31, 1938*

[Amounts in thousands of dollars]

| Number of banks, 13,659 | | Percentage of total assets | |
|---|---|---|---|
| ASSETS | | | |
| Cash, balances with other banks, and cash items in process of collection: | | | |
| Currency and coin | $950,394 | 1.67 | |
| Reserve with Federal Reserve | 8,694,388 | 15.31 | |
| Other balances with banks | 5,717,600 | 10.07 | |
| Cash items in process of collection | 1,813,703 | 3.19 | |
| Total cash, balances with other banks, and cash items in process of collection | 17,176,085 | | 30.24 |
| Securities: | | | |
| Direct obligations of the U. S. Government | 11,938,870 | 21.02 | |
| Obligations guaranteed by the U. S. Government | 2,567,937 | 4.52 | |
| Obligations of Government corporations and agencies, not guaranteed by the U. S. Government | 367,458 | .65 | |
| Obligations of states and political subdivisions | 3,011,333 | 5.30 | |
| Other securities | 3,565,070 | 6.28 | |
| Total securities | 21,450,668 | | 37.77 |
| Loans, discounts, and overdrafts (including rediscounts) | 16,024,318 | | 28.21 |
| Total loans and securities | 37,474,986 | | 96.22 |
| Miscellaneous Assets: | | | |
| Bank premises owned, furniture and fixtures | 1,123,363 | 1.98 | |
| Real estate owned other than bank premises | 489,556 | .86 | |
| Investments and other assets indirectly representing bank premises or other real estate | 156,143 | .27 | |
| Customers' liability to reporting banks on acceptances outstanding | 122,371 | .22 | |
| Other assets | 257,750 | .45 | |
| Total miscellaneous assets | 2,149,183 | | 3.78 |
| Total assets | 56,800,254 | | 100.00 |
| LIABILITIES | | | |
| Deposits: | | | |
| Individuals, partnerships, and corporations: | | | |
| Demand | 23,476,863 | 41.33 | |
| Time | 14,012,540 | 24.67 | |
| States and political subdivisions | 3,516,769 | 6.19 | |
| United States Government | 837,964 | 1.48 | |
| Postal savings and U. S. Treasurer's Time Deposits, open account | 86,097 | .15 | |
| Other banks | 7,253,688 | 12.77 | |

*Summary of assets and liabilities of operating insured commercial banks, United States possessions, December 31, 1938*—Continued

[Amount in thousands of dollars]

| Number of banks, 13,659 | | Percentage of total assets | |
|---|---|---|---|
| LIABILITIES—continued | | | |
| Deposits—Continued. | | | |
| Certified and officers' checks, cash letters of credit and travelers' checks outstanding, etc | $594,754 | 1.05 | |
| Total deposits | 49,778,676 | | 87.64 |
| Demand | 34,949,194 | | |
| Time | 14,829,482 | | |
| Miscellaneous Liabilities: | | | |
| Bills payable, rediscounts, and other liabilities for borrowed money | 17,584 | .03 | |
| Acceptances executed by or for account of reporting banks and outstanding | 140,044 | .25 | |
| Dividends declared but not yet payable | 35,254 | .06 | |
| Other liabilities | 393,082 | .69 | |
| Total miscellaneous liabilities | 586,324 | | 1.03 |
| Total liabilities (excluding capital accounts) | 50,365,000 | | 88.67 |
| CAPITAL ACCOUNTS | | | |
| Capital Accounts: | | | |
| Capital stock, notes, and debentures | 2,981,666 | 5.25 | |
| Surplus | 2,346,708 | 4.13 | |
| Undivided profits | 741,674 | 1.31 | |
| Reserves for contingencies | 310,453 | .55 | |
| All other capital accounts | 54,753 | .09 | |
| Total capital accounts | 6,435,254 | | 11.33 |
| Total liabilities and capital accounts | 56,800,254 | | 100.00 |

## Exhibit No. 611

[Chart based on following statistical data appears in text on p. 3765]

*Geographical concentration in the control over the principal reservoirs of savings, compared with the concentration in population and in the value added by manufacture*

[Amounts in millions]

| State | Life insurance companies admitted assets 1937 (1) | All banks savings and other time deposits 1937 (2) | Building and loan association assets 1937 (3) | Total 1+2+3 Amount (4) | Total 1+2+3 Pctg. (5) | Percentage of total for U. S. Value added by mfg. 1935 (6) | Urban population 1930 (7) | Total U. S. population 1937 (8) |
|---|---|---|---|---|---|---|---|---|
| New York | $11,107 | $7,306 | $379 | $18,792 | 33.29 | 15.43 | 15.26 | 10.03 |
| New Jersey | 4,256 | 1,225 | 792 | 6,273 | 11.11 | 5.46 | 4.84 | 3.36 |
| Massachusetts | 2,174 | 2,581 | 476 | 5,231 | 9.26 | 10.74 | 5.55 | 3.42 |
| Pennsylvania | 1,313 | 2,366 | 597 | 4,276 | 7.57 | 10.06 | 9.48 | 7.87 |
| Connecticut | 2,253 | 909 | 31 | 3,193 | 5.66 | 4.64 | 1.64 | 1.35 |
| Subtotal | 21,103 | 14,387 | 2,275 | 37,765 | 66.89 | 46.33 | 36.77 | 26.03 |
| All other Sts | 5,146 | 10,107 | 3,437 | 18,690 | 33.11 | 53.67 | 63.23 | 73.97 |
| Grand total | 26,249 | 24,494 | 5,712 | 56,455 | 100.00 | 100.00 | 100.00 | 100.0 |

Sources: (1), Spectator Insurance Year book; (2), (6), (7), (8), Statistical Abstract of the U. S. 1938; (3), Report of the Comptroller of the Currency, 1939.

## Exhibit No. 612

*Data reflecting the number of persons employing various savings processes, 1920, 1930–1938*

| Institutions | 1920 | 1930 | 1937–38 |
|---|---|---|---|
| | (Millions) | | |
| (1) Life Insurance Companies—Number of Policies: | | | |
| Ordinary | 16.7 | 32.8 | 35.3 |
| Industrial | 49.8 | 89.4 | 88.9 |
| (2) Savings and Time Deposits in Commercial Banks—Number of depositors (pass books) | (?) | 40.6 | 30.7 |
| (3) Mutual Savings Banks—Number of depositors | 9.1 | 12.1 | 13.5 |
| (4) Building and Loan Associations—Members | 5.0 | 12.3 | 6.2 |
| (5) Governmental Pension and Retirement Systems: | | | |
| Social Security Board, Title II—persons | ------ | ------ | 36.1 |
| Railroad Retirement Board—persons | ------ | ------ | 1.5 |
| U. S. Government Life Insurance—persons | .6 | .6 | .6 |
| U. S. Government Civil Service—persons | (?) | (?) | .5 |
| State, County, and City Pension Systems—persons | (?) | (?) | .2 |
| (6) Postal Savings System—depositors | .5 | .5 | 2.8 |
| (7) Fraternal Orders (life insurance)—certificates | 8.4 | 7.8 | 6.7 |
| | (Thousands) | | |
| (8) Stockholders (Common Stock): | | | |
| American Telephone & Telegraph Co.—Number | 132 | 530 | 647 |
| Pennsylvania Railroad—" | 128 | 215 | 215 |
| U. S. Steel Corporation—" | 89 | 136 | 168 |

Sources: (1), (2), (3), (4), (6), (7), Statistical Abstract of the U. S. 1938; (5), Respective agencies; (8), Survey of Current Business.

## Exhibit No. 613

[Chart based on following statistical data appears in text on p. 3776]

*Public and private construction and maintenance in the United States, 1920–1938, including part of Work Relief construction*

[Millions of dollars]

| Year | Total construction | Public construction[1] | Private construction[2] | Percent of public to total |
|---|---|---|---|---|
| 1920 | 8,563 | 2,044 | 6,519 | 23.9 |
| 1921 | 8,062 | 2,325 | 5,737 | 28.8 |
| 1922 | 9,346 | 2,358 | 6,988 | 25.2 |
| 1923 | 10,920 | 2,228 | 8,692 | 20.4 |
| 1924 | 12,049 | 2,555 | 9,494 | 21.2 |
| 1925 | 13,063 | 2,819 | 10,244 | 21.6 |
| 1926 | 13,779 | 2,862 | 10,917 | 20.8 |
| 1927 | 13,944 | 3,189 | 10,755 | 22.9 |
| 1928 | 13,710 | 3,330 | 10,380 | 24.3 |
| 1929 | 13,488 | 3,309 | 10,179 | 24.5 |
| 1930 | 11,814 | 3,733 | 8,081 | 31.6 |
| 1931 | 8,689 | 3,424 | 5,265 | 39.4 |
| 1932 | 5,445 | 2,539 | 2,906 | 46.6 |
| 1933 | 4,044 | 1,918 | 2,126 | 47.4 |
| 1934 | 4,860 | 2,474 | 2,386 | 50.9 |
| 1935 | 5,578 | 2,548 | 3,030 | 45.7 |
| 1936 | 7,731 | 3,496 | 4,235 | 45.2 |
| 1937 | 8,440 | 3,329 | 5,111 | 39.4 |
| 1938 | 8,396 | 3,711 | 4,685 | 44.2 |

[1] See footnote 1 of table entitled "Public Construction and Maintenance in the United States, 1920–1938."
[2] Source: *Construction Activity in the United States, 1915–1937*, Department of Commerce, Table 6, page 24, and *Survey of Current Business*, December 1938, page 11.

## Exhibit No. 614

[Chart based on following statistical data appears in text on p. 3779]

*Outlays for construction and maintenance of government plant—Federal and local, 1920–1938—Part of Work Relief Construction Included*

[Millions of dollars]

| Year | Total government public works | Direct Federal public works [1] | State and Local Public Works | | |
|---|---|---|---|---|---|
| | | | Total | State and local funds [2] | Federal aid [3] |
| 1920 | 2,044 | 504 | 1,540 | 1,501 | 39 |
| 1921 | 2,325 | 402 | 1,923 | 1,848 | 75 |
| 1922 | 2,358 | 283 | 2,075 | 1,993 | 82 |
| 1923 | 2,228 | 204 | 2,204 | 1,947 | 77 |
| 1924 | 2,555 | 203 | 2,352 | 2,264 | 88 |
| 1925 | 2,819 | 191 | 2,628 | 2,536 | 92 |
| 1926 | 2,862 | 184 | 2,678 | 2,592 | 86 |
| 1927 | 3,189 | 199 | 2,990 | 2,907 | 83 |
| 1928 | 3,330 | 233 | 3,097 | 3,014 | 83 |
| 1929 | 3,309 | 276 | 3,033 | 2,952 | 81 |
| 1930 | 3,733 | 328 | 3,405 | 3,288 | 117 |
| 1931 | 3,424 | 368 | 3,056 | 2,884 | 172 |
| 1932 | 2,539 | 399 | 2,140 | 1,949 | 191 |
| 1933 | 1,918 | 437 | 1,481 | 1,133 | 348 |
| 1934 | 2,474 | 509 | 1,965 | 1,208 | 757 |
| 1935 | 2,548 | 675 | 1,873 | 1,125 | 758 |
| 1936 | 3,496 | 916 | 2,580 | 1,316 | 1,264 |
| 1937 | 3,329 | 773 | 2,556 | 1,391 | 1,165 |
| 1938 | 3,711 | 655 | 3,056 | 1,612 | 1,444 |

[1] Federal construction, excluding Federal aid and grants, *ibid.*, page 24, Table 6, and page 19, Table 3a; also includes 50 percent of Federal work relief construction estimated from Works Progress Administration, *Construction Expenditures and Employment.*

[2] State and local expenditures for public works, excluding Federal aid, loans, and work relief, U. S. Department of Commerce, *ibid.*, page 24, Table 6, and sources given in footnote 3, below.

[3] Includes Federal loans as estimated from Works Progress Administration, *loc. cit.*; also Federal aid to highways and grants, U. S. Department of Commerce, *ibid.*; and 50 percent of work relief expenditures for state and local public works. See Table B.

Basic source: U. S. Department of Commerce, *Construction Activity in the United States, 1915–1937*, and *Survey of Current Business*, December 1938, page 11.

## Exhibit No. 615

[Chart based on following statistical data appears in text on p. 3780]

*Public construction and maintenance in the United States, 1920–1938, part of work relief included*

[Millions of dollars]

| Year | Construction and maintenance [1] | Public construction [2] | Maintenance [3] | Year | Construction and maintenance [1] | Public construction [2] | Maintenance [3] |
|---|---|---|---|---|---|---|---|
| 1920 | 2,044 | 1,536 | 508 | 1930 | 3,733 | 2,827 | 906 |
| 1921 | 2,325 | 1,753 | 572 | 1931 | 3,424 | 2,615 | 809 |
| 1922 | 2,358 | 1,786 | 572 | 1932 | 2,539 | 1,881 | 658 |
| 1923 | 2,228 | 1,645 | 583 | 1933 | 1,918 | 1,346 | 572 |
| 1924 | 2,555 | 1,904 | 651 | 1934 | 2,474 | 1,804 | 670 |
| 1925 | 2,819 | 2,142 | 677 | 1935 | 2,548 | 1,851 | 697 |
| 1926 | 2,862 | 2,138 | 724 | 1936 | 3,496 | 2,671 | 825 |
| 1927 | 3,189 | 2,395 | 794 | 1937 | 3,329 | 2,524 | 805 |
| 1928 | 3,330 | 2,499 | 831 | 1938 | 3,711 | 2,903 | 808 |
| 1929 | 3,309 | 2,458 | 851 | | | | |

[1] Includes all expenditures for public construction based on estimates of Department of Commerce published in *Construction Activity in the United States*, 1915–1937, Table 6, page 24, using only 50 percent of the work relief expenditures for construction for the years 1933–1938 which are shown in footnote 1 of Table 6. The figures also include expenditures for construction and maintenance of naval vessels. See Table A on construction of naval vessels. Figures for 1936, 1937, and 1938 obtained from *Survey of Current Business*, December 1938, p. 11.

[2] Source: Department of Commerce, *ibid.*, Table 3, page 18, plus 50 percent of work relief expenditures shown in Table B plus naval construction shown in Table A.

[3] Maintenance is the difference between total and construction.

## Exhibit No. 616

[Chart based on following statistical data appears in text on p. 3782]

*What was built by the Government, 1920–1937, (maintenance and work-relief construction excluded)*

[Millions of dollars]

| Year | Total public construction | Highways | Sewerage disposal and water supply | Public educational buildings | Non-residential buildings, excluding public educational | Naval and military [1] | Conservation and development | Miscellaneous construction |
|---|---|---|---|---|---|---|---|---|
| 1920 | 1,536 | 640 | 153 | 197 | 86 | 363 | 55 | 42 |
| 1921 | 1,753 | 840 | 178 | 279 | 108 | 252 | 52 | 44 |
| 1922 | 1,786 | 851 | 201 | 348 | 133 | 154 | 48 | 51 |
| 1923 | 1,645 | 783 | 203 | 359 | 122 | 63 | 65 | 50 |
| 1924 | 1,904 | 951 | 263 | 369 | 125 | 51 | 79 | 66 |
| 1925 | 2,142 | 1,056 | 278 | 415 | 158 | 42 | 73 | 120 |
| 1926 | 2,138 | 1,039 | 285 | 414 | 189 | 36 | 61 | 114 |
| 1927 | 2,395 | 1,190 | 312 | 382 | 214 | 39 | 63 | 195 |
| 1928 | 2,499 | 1,270 | 300 | 390 | 248 | 52 | 72 | 167 |
| 1929 | 2,458 | 1,248 | 253 | 387 | 255 | 66 | 86 | 163 |
| 1930 | 2,827 | 1,481 | 343 | 361 | 286 | 79 | 111 | 166 |
| 1931 | 2,615 | 1,323 | 270 | 273 | 318 | 78 | 135 | 218 |
| 1932 | 1,881 | 916 | 156 | 142 | 269 | 73 | 139 | 186 |
| 1933 | 1,297 | 675 | 81 | 56 | 147 | 84 | 168 | 86 |
| 1934 | 1,559 | 821 | 131 | 74 | 107 | 114 | 246 | 66 |
| 1935 | 1,667 | 622 | 159 | 165 | 128 | 169 | 319 | 105 |
| 1936 | 2,111 | 876 | 215 | 249 | 37 | 212 | 338 | 184 |
| 1937 | 2,134 | 811 | 210 | 364 | [2] | 212 | 314 | 223 |

[1] Includes expenditures for construction of new vessels shown in Table A.
[2] Included in public educational buildings.

Source: Basic data from U. S. Department of Commerce, *Construction Activity in the United States, 1915–1937*, Table 3, page 18. Work relief expenditures for construction have been deducted. Data for 1936 and 1937 are from worksheets of the Department of Commerce.

"Exhibit No. 617" appears in text on p. 3811

## Exhibit No. 618

[Chart based on following statistical data appears in text on p. 3816]

*Total Corporate bonds and notes issued and amounts placed privately, 1934–1938*

| Year | Total corporate bonds & notes issued [1] | Corporate bonds & notes privately placed [2] | Percent placed privately | Year | Total corporate bonds & notes issued [1] | Corporate bonds & notes privately placed [2] | Percent placed privately |
|---|---|---|---|---|---|---|---|
| 1934 | $455,000,000 | $100,000,000 | 21.98 | 1937 | $1,676,000,000 | $447,000,000 | 26.67 |
| 1935 | 2,117,000,000 | 364,000,000 | 17.19 | 1938 | 1,980,000,000 | [3] 733,000,000 | 37.02 |
| 1936 | 4,026,000,000 | 443,000,000 | 11.00 | | | | |

[1] Source: "The Commercial and Financial Chronicle."
[2] Sources: "Securities and Exchange Commission."
[3] Preliminary.

"Exhibit No. 619" appears in text on p. 3818

EXHIBIT No. 620

[CAUTION—ADVANCE—For release on delivery, probably 2:00 P. M., E. S. T. Tuesday, May 23, 1939]

MEMORANDUM

# A BANKING SYSTEM FOR CAPITAL AND CAPITAL CREDIT

A. A. Berle, Jr.

Before Temporary National Economic Committee May 23, 1939

## INTRODUCTION

Beneath the highly technical title of "capital credit" there is really concealed a tremendous issue. It serves no useful purpose not to state that issue with some bluntness, in spite of the fact that so to state it tends to antagonize a good many interests. Briefly, the private financial system as at present constituted does not work. It has, accordingly, to be supplemented by vast amounts of Federal credit which make up in some measure, but inadequately, for the difficulties in the existing system of private finance. Use of the Federal credit by providing relief, and by taking care of certain necessary social requirements through public works in a limited field does keep the economic machinery of the country running; but it is not a permanent solution. There is always the danger that the time may come when an economy so organized will reach the end of its tether. We should be getting about the process of reorganization now, instead of leaving it for the more violent processes which always occur when the country is in great stress.

Most of the sequences of figures with which I am familiar indicate that we will (unless fundamental remedies are adopted) reach a period of stress in any case within a short period of years. Unless there is some distortion such as that which might be caused by a general war, I should think that the next major downturn of the business cycle (due in any case within four or five years) might present all the factors for an explosive situation. We may, of course, navigate safely through that period, leaving the final reckoning to be made at some later downturn of the business cycle. In any event the next decade will, I think, probably force a showdown.

Since the United States has at its command all necessary productivity, all necessary technical skill, all necessary energy and labor, and substantially all necessary raw materials, any failure of the economic system must be directly due to malorganization.

In a democratic economy, the processes of finance are in large measure relied upon to make it possible for individuals to organize their energy, the materials obtainable, and other necessary elements to produce and distribute whatever the country may, in reason, desire. I suppose the test of a financial system is whether it approximately accomplishes that purpose. The present system apparently does not, and, a major difficulty appears to be in the system of handling capital finance and capital credit. Conceivably, by solving this question, we may be able to take care of much of the difficulty.

I note one historical fact which, I think, is significant. Whenever there have been hard time in the country, the public has almost instinctively turned towards the currency-credit machinery and has called for monetary measures. My own feeling is that the instinct of the country in doing this was sound. Many of the specific remedies actively pressed have been dangerous, or ridiculous, or both. The fact, however, that the solutions suggested were absurd does not make it safe to conclude that the public was wrong in feeling that the credit system needed overhauling, and was capable of vastly more use than we have made of it. Too often the views expressed in such times were dismissed withstatements that they were "inflationary," or "unsound," or that they violated some traditional principle. These comments, though true, left unexplained and unsolved the fundamental fact, namely, that the financial system, in the face of great need and adequate elements of supply, was unable to take the supply, organize it into production, and carry it to the known need. So long as this fact continues, the case in favor of the existing financial system remains unproved and unconvincing.

## I. THE BACKGROUND OF CAPITAL CREDIT

### (A) *Historical*

Classic finance recognizes the sharp difference between short-term credit and money—the sort of function a commercial bank normally performs, and long-term financing—the kind of thing done by the investment banking houses through bond and stock issues.

The short-term credit field has been evolving continuously and rapidly. During the last century the private commercial banks moved steadily forward. As they did so repeated occasional stoppages of currency and credit forced a steady evolution of their theories and their machinery. The result was the organization of the great European central banks and reserve bank systems developed in the latter half of the nineteenth century, and, in the United States, with the creation of the Federal Reserve System in 1914.

Briefly, what happened was the creation of machinery so that the supply of money and short-term credit should keep pace and proportion with the need for it, and yet be kept in rough working relation to the floating supply of current goods and services moving towards consumption or final use. In result, the supply of bank credit and bank deposits (in effect, the power of commercial banks to create and circulate money) is rightly considered as much a part of our monetary system as is currency itself. Proper use of this machinery could make (as I think it has made) any general strain on American commercial banks a negligible danger. Probably if the monetary mechanisms made available between 1933 and the present time had been created and available in 1929–1932, much of the suffering of the great depression could have been mitigated, if not avoided.

By contrast, the long-term credit field has had no comparable development since its appearance at and after the time of the Napoleonic wars. A striking fact is that long-term credit—that is, the type of money which normally goes towards construction, public improvements, and permanent acquisitions to plant through investment—moves in much the same way that it did when the House of Rothschild started selling bonds more than a century ago. The bond-selling business has not changed much. Indeed, the Rothschilds themselves did not improve, very much, upon the system which the British East India Company had used in securing its capital during the seventeenth and eighteenth centuries.

We have, today, a highly elastic system for handling short-term credit; for creating the equivalent of currency; for enlarging and contracting the supply of that currency; and (within very narrow limits) for steering that currency and credit where it is needed, though the "controls" of it are not yet well organized. We have no really modern system of long-term finance.

### (*b*) *The Newer Theories*

Meanwhile, certain academic students have developed major discoveries. Outstanding among them is the fact that long-term capital is by no means a thing apart from money and credit.

The studies of Professor Harold Moulton plainly indicated that the whole theory of long-term credit necessarily had to be revised. As noted, his major contribution was the discovery that a large part of what had been assumed to be "savings"—that is, money destined for long-term investment—was not different from any other kind of created bank credit. His conclusion, stated concisely, was that a considerable part of what we had called "savings" consisted merely in an excess of money or bank deposits created through the normal operation of the banks and made available for investment.

I do not think that the revolutionary quality of this discovery has been adequately appreciated. If true, it meant that our ideas on the whole subject of capital and capital credit had to change. For, if capital could be created by creating bank credit, we were released from the irregularities of the flow of so-called "savings." Banking mechanisms could be called on to accomplish at least part, and perhaps more than part, of what had been done by a much less dependable process, and with far less regularity. Capital development can go on though there are no savings, or though owners of those savings decline to invest them and wish to hoard. Moulton's study pointed to a definite reorganization of the banking structure. It at least suggested the possibility that long-term investment might be assisted or carried on through properly controlled banking operations, in much the same way that we have learned to assist or carry on ordinary mercantile and

manufacturing activities through the use of currency and bank credit created through the Federal Reserve System and made available through ordinary commercial banks. Professor Moulton did not suggest any banking methods by which this could be done; nor did he undertake to develop the possible dangers to be guarded against. But he did demonstrate one fact. There is no more reason why the flow of capital toward wealth-creating industry should stop, any more than there is any real reason why the flow of currency should stop; no more reason why the capital markets should be closed, than why the commercial banks should be closed.

Likewise, during the past decade, the work of Maynard Keynes had indicated the importance of capital financing in a national economy. The point of interest here lies in his demonstration that capital financing directly increased the national income by more than its amount. A dollar put into construction—that is, into a road or plant or building which served a social necessity—would increase the national income in that year or in the subsequent year by not less than one and three-quarters dollars nor more than, approximately, three and one-half dollars. To put it differently, ten billion dollars spent in sound capital financing would increase the national income by not less than seventeen billion five hundred millions nor more than thirty-five billions. This formula, sometimes called the "Keynes Multiplier" can roughly be taken as a multiplier of two and one-half to one, meaning that national income is increased by about two and a half times the amount spent on heavy capital construction.

The theory of the "Keynes Multiplier" has been both attacked and defended. The National Industrial Conference Board held a seminar in which both proponents and opponents debated the proposition. My own conclusion, after reading the discussion, is that as a matter of theory Keynes' demonstration stands up. There is evidence, based on the work of Schacht, who put the theory into practice in Germany, that it stands up in practice as well.

It is against that theoretical background that we have to work in undertaking to reappraise our theories of capital credit.

### (c) *Our capital market has been largely closed since 1931*

Finally, we have the undisputed fact in the United States—(it appears partly true also in France, and to a less extent in Great Britain)—that the private capital markets have been in large measure closed since the year 1931. The precise figures differ with the methods of the statistician who is making up the addition; but the general conclusion is inescapable no matter what statistical methods are adopted.

The flow into capital construction may be said to have found its norm at a level of somewhere between eight and ten billions of dollars during the decade from 1920 to 1930. Of this, at least six billions went through the public markets that is, occurred by sale of stocks and bonds. The balance went into construction through the mortgage markets or through private placement. By 1931 the amounts going through the public markets had fallen to approximately half that amount, then withered to a mere fraction. At a maximum, since 1931, not more than two and one-half billions of true capital money has gone through the mechanism of the public markets. The average is considerably less.

The conclusion is obvious: American private markets are not funneling capital funds into capital construction at more than (roughly) one-third to one-half the rate they were doing in the 1920–1930 decade. This means that private activity in heavy industry is not being continuously generated in sufficient volume to keep those industries busy, or to keep the country continuously on an even economic keel.

The slack has been taken up by government financing. It is entirely beside the point to object to this so long as the situation remains unchanged. Irrespective of political complexion, any government faced with a substantial closure of the capital markets would be forced to take measures to keep the heavy industries and the capital goods markets sufficiently active to provide employment. If the only available method was use of government credit, that method would necessarily be used. To attack government spending as such in this situation is simply to ignore realities.

### (d) *The effects and the dangers of a closed capital market*

If it be true, as apparently it is, that the private capital markets are not providing the necessary flow of capital towards actual construction of tangible economic wealth, and in place of it the government is undertaking to do the job, we have to face certain definite effects.

The danger of a break-down in the government credit is discussed later; enough here to say that it may be discounted. In any case, it has been wholly overstressed.

In a capitalistic world, creation of wealth invariably means the creation of a corresponding claim against that wealth. In practice this means either a stock or a bond—either an equity or a debt. Actually, it means a debt in the great majority of cases. The expansion in American industrial plant from 1920 to 1930 was accompanied by an equivalent expansion in debt, though the debt was private rather than public. In a national economy it does not make a great deal of difference, from the strict finance and monetary point of view, whether the debt is that of a corporation, or is that of the United States, of a state, or of a municipality: *provided* the expenditure actually creates wealth.

The real danger lies elsewhere.

There is, first, the fact that the wealth-creating power of the government is relatively limited. It has under its direct control not more than, perhaps, one-tenth of the productive machinery of the country. This is largely traditional in form. The government can create, and does create, wealth in the form of roads, parks, public buildings, public hospitals, and the traditional public services of the federal, state, and local units. Plainly, these as they now stand are not sufficient to serve as the market for more than a fraction of the capital goods production in the United States. If, therefore, wealth is to be created by creation of government debt, the scope of government enterprise must be largely increased. Briefly, the government will have to enter into the direct financing of activities now supposed to be private; and a continuance of that direct financing must be inevitably that the government ultimately will control and own those activities. Put differently, if the government undertakes to create wealth by using its own credit at the rate of four billion or so a year, and if its work is well done, the government will be acquiring direct productive mechanisms at the rate of four billions' worth a year, or thereabouts. Over a period of years, the government will gradually come to own most of the productive plants of the United States.

This is certainly so fundamentally a change in the course of American life that the decision to make it should be taken for reasons other than relief of a series of temporary difficulties. If the country desires to make wealth creation a function of government (I personally believe it must do so in larger measure than it has heretofore) the choice should be the considered choice of the country, and not the result of a policy of drift.

The government's ability to create wealth efficiently is denied by a good many people. It seems to me a good many of these attacks are unjustified, though I am frankly biased in favor of public ownership of certain forms of wealth. The country will probably be decided in the next few years whether the government ought not to own, directly or indirectly, part of the national plant such as railroads, electric power, and mineral resources; and the Temporary National Economic Committee may give us a final answer.

But in any case, it is true that there are vast areas in which the government probably cannot act effectively. Where the service to be rendered or the goods to be turned out are standard; where the problem of choice or fashion or individual desire does not enter into the problem very much; where the development of the art is not rapid, and where the benefit from the plant constructed is generally distributed, and especially where the process of rendering the service or creating the goods tends to be a monopoly, the government has a possible field for expansion. Where these elements are not present, the ability of the government to do a good job becomes questionable, to say the least. The government undoubtedly could mine and deliver ore from the Minnesota fields without difficulty. Conceivably, it could smelt the ore into steel. But if the government endeavored to go into the business of fine castings or steel specialties, either the nature of industry would have to change, or the nature of government would have to change.

In a democratic organization of economy, the obvious end should be to permit and require private initiative to do as much of the work as it can, consistent with maintaining the national economy on a reasonably even flow, distributing the burdens and benefits meanwhile that no class will be unduly favored, no class unduly burdened, and a maximum of opportunity be provided for everyone to use his abilities usefully with corresponding reward. It is the definite function of the financial system to make this possible at all times.

The conclusion seems inevitable. Either we are on the eve of a change in our financial system; or we are on the eve of a change in our social system.

Plainly, a revised financial system should not be conceived to settle the question of whether the United States becomes a Socialist country, which, of course, I am not advocating. That will be determined partly by economic forces and partly

by the thinking and the desires of the country itself. In consequence, the system of finance has to be so adapted that it can serve, equally well private enterprise, public enterprise, or a combination of both, and any intermediate forms which may appear. The plan must be flexible enough to permit any development—always provided that the development actually does create added tangible wealth. If private enterprise will do it, and maintain an even and expanding national economy, good. If it is unable to do so, the scheme must be drawn widely enough to tap other methods of organization of wealth.

### II. THE UNDERLYING REASONS

Before attempting a solution, it is perhaps useful to appraise some of the reasons usually given for the stoppage in the capital markets and for the change in the system. There will be no agreement on these reasons. I here set some of them down, fully realizing that every observer will assess the reasons differently; adding others of his own.

#### (*a*) *The restricted base of national enterprise*

One great reason for the change of emphasis lies in the fact that the portion of the world operating under a free economy has now shrunk to approximately half its former size. One by one, certain great nations of the world have ceased to operate on a free economy; have organized more or less totalitarian systems; and have attempted to set up for themselves an artificial self-sufficiency which is commonly called autarchy. Of the Great Powers of the world still running upon an approximately free economy there now remain only Great Britain, France, and the United States, and the South American countries, whose development obviously still lies ahead. Necessarily, this has restricted or re-channeled the scope of the industries of all countries, including those which lived in part (as did the United States) directly or indirectly on the export trade.

We have not, up to date, felt the full possible effect of this change. What has happened thus far has been merely restriction. The impact of an "autarchic" country seriously endeavoring to use its integrated mechanism to exchange its product for ours is yet to be felt. If, for instance, Germany undertook to disarm, and funneled the activity which has gone into armament into production of steel products for export; and if she undertook to lay these down in the United States virtually irrespective of cost (which is perfectly possible under the German system), we should be faced either with a vanishing steel industry here, or with the necessity at once of going into partially autarchic measures of our own. Dimly, American business enterprise is aware of this; and for that reason has, in general, rightly supported Secretary Hull's policy of endeavoring to reestablish and restore an open economy throughout the world. It is not convinced as yet that the policy, though inevitable in the long view, will be successful in the immediate future; and for that reason private-profit capital is wary of investing in any enterprises save those which are plainly comprehended within our domestic picture.

#### (*b*) *Increases in needed social services*

Second in order of importance, perhaps, is the probability that there has been a major change in the relation of public and private activities. As development of a country progresses, I think it will be found on careful analysis, that there is an increased need for wealth of the nonprofit type. I think that the need for such wealth increases at a rate fastern than the development of the country. This is certainly true where the result of industrial development is either to concentrate population in cities, or to increase the speed of transportation and communication. Both have happened in the United States to an extremely marked degree. It is not wholly clear whether this is a physical necessity, or whether it arises from the fact that with an increased standard of living, we become more aware of social needs which have to be met. For the purposes of this discussion, it is immaterial. Whether the needs are logical or psychological, they are real enough. It is possible that we could run a huge industrial plant with the same rudimental provision for, let us say, public health, which we had fifty years ago; though I doubt it. The fact is that people do insist on a higher standard of public health work today, and that the community will not tolerate its absence. In result, the proportionate expense in cities like, let us say, New York, Detroit, or Chicago, for hospitals, health work and the like, have steadily grown; and not even the most ardent advocate of economy will permit its eduction.

Under the traditional businessman's view, this sort of construction is not usually considered "wealtn." The argument is plainly untenable. In New

York there are two bridges: the Brooklyn Bridge, which is free, and the George Washington Bridge, which is a toll bridge. The Brooklyn Bridge makes possible the free flow of traffic from one part of New York to another, and therefore adds to the wealth of the entire city, though it does not charge by the unit, and is supported out of the tax roll. The George Washington Bridge is owned by the Port Authority and pays its way by a standard charge collected from each passing car. It likewise assists the free flow of goods, though a different method of payment is used. It is absurd to say that the Brooklyn Bridge is not "wealth" and that the George Washington Bridge is "wealth," merely because of this difference. It is equally absurd to say that a public hospital is not "wealth" because it serves the area gratis, or nearly so; while a private hospital which is able to pay its expenses through charges made against its patients, is "wealth." In this sense, wealth is anything which satisfies a recognized need. The advance in technical, demographic and cultural development of the country has apparently brought to the fore recognized social needs with greater rapidity than heretofore. Many, perhaps most, of these social needs cannot be handled on a "price per unit" basis; their cost must be paid by the community at large; yet the productive functions of the community are better off for their existence. They therefore become a logical field for public capital financing.

Private capital and industry do not understand this; they have been, up to now, afraid of it. I believe that this fear will rapidly disappear, given two conditions. The first condition is that there is a sufficient public understanding. The second is that this class of wealth be removed from partisan political administration so far as humanly possible.

In this respect the outstanding experience of the country has been that of the city of New York, where Mayor LaGuardia took this view. He was able to overcome both the fear of private interests of increased meeting of social needs, particularly in the field of parks, hospitals, and transportation facilities; and he was able to do this because of his announced policy of non-political administration whereby the creation and handling of such wealth was removed, so far as he could do so, from the realm of party politics.

The result would seem to indicate that an extension of government creation of wealth is indicated; and that it can be done without danger to our political or social system provided the development is done with honesty and character.

### (c) *The fears of capital and capital groups*

It is frequently said that certain governmental policies are responsible for the stoppage of the capital markets. The policies are emphasized usually according to the personal experience of the speaker. The utilities industry will insist that no investment can be expected in it so long as the government in various ways either enters into competition or permits or assists other public competition—a flat insistence that unless they are permitted a monopoly, private investment cannot be expected. An industrialist will insist that so long as labor relations are in a difficult state, and that the National Labor Relations Act is manned by individuals alleged to be unfairly biased in favor of laborers, private capital cannot be expected to go into manufacturing. Other groups insist that the repeated government investigations, antitrust moves, and the multiplication of burdensome and annoying regulations frequently in the hands of inexperienced administrators, discourages enterprisers from carrying on business, let alone entry into new fields. Still other groups insist that the imposition of certain types of taxation creates a "heads you win, tails I lose" situation, so that there is not adequate incentive. Still others points out that private capital will not go into private business with its necessary risks when it can find a safe and reasonably certain return, frequently without necessity of income tax, in a bond of the United States Government or of some agency. As to this last, it may be noted that the argument is somewhat overstressed, since the price of a tax-exempt bond usually discounts in considerable degree the difference between the government and the private bond; the purchaser of the tax-exempt bond pays his income tax in advance when he pays a higher price for the security, or accepts a lower return. But the competition is real enough; a trustee, savings bank, or insurance company seeking investment in a disturbed time will normally gravitate towards the government bond which has not the risk involved in a private bond.

There is something in all these contentions, but probably all have been exaggerated entirely out of measure. This essay is not the place for setting out the reason for this conclusion; still less for analyzing the peculiar psychology of the American capital markets in which a half truth stated loudly enough too often becomes the sincere and honest belief of the financial community, and is thereby

passed on to the investing community. I do believe the fears have been badly overstated. Prophecies of complete stoppage or complete disaster have been made whenever any reform has been undertaken; and they have usually proved unfounded once there is acceptance of the reform, and as soon as the mechanism of the reform ceases to be annoying and self-conscious. We have not yet reached this phase, though it is visibly approaching.

The fact that this third set of objections can be overcome does not, nevertheless, eliminate the validity of the first two; and those three do indicate the need for a serious and thoroughgoing change in the machinery of capital and investment.

### (d) *The need for a causative mechanism*

Perhaps the greatest change which has influenced the present situation lies in the fact that the machinery we now have is passive. A businessman with a sufficiently strong imagination and will, and sufficient ability to convince the public that there is possibility of profit, can attract toward his enterprise the capital necessary to construct his plant and set up his organization. He cannot, of course, do this in a field where the need is social rather than commercial, and the initiative rests upon the government—federal, state, or local. In this last field, there is a whole mine of initiative which could be tapped, where the financial resources readily available, which they are not.

Yet a businessman may be perfectly convinced of a need, and of the possibility of filling it, and may be entirely willing to fill it with only a modicum of profit, but he will not be stimulated into action unless he has some reason to believe that there is a capital machinery which is anxious to have him tackle the job. The plain need for more housing, for instance, has not engendered any great amount of enterprising ability, at least partly because there was no organized group of finance which was not only ready to provide him with capital by actively endeavoring to find him and put him to work.

In any new capital credit set-up, accordingly, there ought to be not merely a passive mechanism which can be availed of; but an active group recognizing the responsibility for filling certain needs of the community, and for finding the means and the men who can fill those needs, and for putting at their resources the capital necessary to do so. In earlier times, the local bank not infrequently used to do this, providing capital to young men who had ideas and ability, and staking them to the creation of enterprises of benefit both to the enterpriser and to the community. Many American businesses which have since attained substantial proportions were started in exactly this way. The large commercial banks do not do this today. If they desired to do so, they would probably not be permitted to do so under the prevailing banking regulations. Indeed, the major theory on which they operate, i. e., creation of bank credit for short-term processing or transportation or merchandising jobs—runs chiefly counter to any theory that the bank, among other things, is supposed to assist in organizing new productivity. Outside of the large corporations, men who have ideas for new enterprise cannot expect to find much assistance in the commercial banking system today.

There is one other lack in our financial machinery. It is crucial. We have not, anywhere in the banking world, that process of development which has been the lifeblood of the technical development of American industry. There is no one looking for new financial methods, new theories of credit, new means of attacking financial and economic difficulties with the same persistence, freedom to explore ideas, and to state results which the chemical or technical research bureaus in any large industry continuously use in looking for new processes, new products, new developments, and new methods.

## III. SYSTEM OF CAPITAL CREDIT BANKING

Even a brief review of the major elements tends to indicate the line of solution. In essence it suggests creation of a capital credit banking system which can do for the country what the revised commercial banking system has done in the short-term credit and strict currency field.

### (a) *The essentials of such a system*

It would appear that such a banking system must meet certain major requirements:

(1) It must make available at all times an adequate supply of cash for "investment" purposes, for the purpose of construction of net tangible additions to the wealth of the country. Such cash may be savings withdrawn from the ordinary

currency and short-term credit supply; or may be bank credit created for the purpose; or may be a combination of both.

(2) It must, however, provide for non-commercial as well as commercial increases in national wealth. In other words, it must provide funds which may be available for strictly private commercial construction, or for quasi-public endeavor, or for public use, as need may appear. Particularly, the supply must be so handled as to open up and make possible new lines of construction which the community obviously needs, but which are not normally undertaken by private enterprise. Thereby the field of possible capital construction is vastly enlarged.

(3) The interest rates must be flexible—that is, adjustable to the need which the country at any given time may have to stimulate capital construction. It should be possible to lower interest rates to a nominal figure when construction is to be stimulated; to raise them, when it should be discouraged. In other words, it is necessary to apply in the investment banking field the same technique which has been worked out in the short-term credit field.

(4) As a corollary to that, it is probably necessary that the interest rate should be selective. There may be every reason for asking four or even five percent return from a commercial enterprise; but there should be the possibility of charging, say, one-eighth of one percent for a non-commercial enterprise, such as a hospital. It is to be remembered that when the government gives to a banking organization the power to create money, it no longer is necessary to offer an interest rate to stimulate that creation. The interest rate under the classic system was designed to lure money out of the normal channel of consumption and into the longer range of investment; to induce people to divert money from present consumption into construction by offering the hope of future rewards. In a word, to stimulate savings. There should be no such necessity to stimulate a bank to use the power which the government gives it.

(5) The use of capital credit ought to be limited to projects which actually do result in capital construction and in a net addition to the tangible plant, private, quasi-public or social, of the country. Just as a bank credit in the commercial field is supposedly limited so that it will at all times stay in relation to the floating supply of goods and services moving towards consumption or final use, so currency or credit created for capital purposes should be limited, to the end that the amount of it in existence shall correspond to the amount of capital assets.

(6) Controls must be in existence so that the currency and credit so created shall not, as it mingles with the ordinary supply of currency and credit, produce "inflation" that is, raise the price level of goods and services solely because of monetary factors. This subject is dealt with in a following section.

(7) Because a capital credit banking system of this sort must serve public as well as private ends, it cannot be exclusively in private control. Conceivably, it may be wholly under non-political public control; conceivably, it may have units both private and public. But it is essential that the capital credit which it supplies shall never be cut off merely through private motives.

### (*b*) *Possible forms and functions*

This memorandum is not designed to attempt the elaboration of a plan of capital-credit banks, but rather to try to examine their possible underlying principles. Nevertheless, certain factors emerge, which must be included in any successful plan.

The point of contact must be a bank or set of banks to which there will come people who desire to construct additions to the plant of the country. The people who come may range from individual enterprisers who wish to construct plants for rayon, steel specialties or knockdown houses; railroads which wish to re-equip their lines; semipublic authorities which desire to construct bridges or parks or low-cost housing; municipalities, counties, or estates which need to construct hospitals, prisons, courthouses, health centers, or other necesssry conveniences.

A capital-credit bank must be charged with the task of assuring itself that the proposed project really does result in a net addition to wealth, interpreted broadly. If the money is merely to be wasted in a project which is useless or unsound, the result would be to create credit without creating wealth; and to the extent that this is done, the credit system is weakened. This is, in theory, the test which reputable investment bankers are supposed to apply when determining whether they will float a bond issue.

The amortization rate of any loan must be such that the loan will be paid within the life of the asset created by it.

The interest rate will be determined as much by social factors, and by the need of the country for construction in general, and the particular kind of construction in particular, as by any desire to reap a banking profit.

*(c) Capital banking as a profit enterprise*

The theory that a bank must "make a profit" today has ceased to be valid, except in an extremely limited sense. The profit of the bank is interesting as showing that by financial standards its work has been well done. In the sense, however, that the bank is "entitled" to a profit, as a reward for something or other, there seems to be no reason for its existence. A bank today is a mechanism for creating currency. It receives this privilege from the government; there is no more valid reason why a bank should make an unlimited profit for creating and applying currency than there is why taxes should be farmed out to the highest bidder, and tax collectors allowed to make a profit on their collection. What is needed is that the managers of capital banks shall be paid, and preferably well paid, for their work, and have an incentive to do that work carefully. But their job is to keep an even flow of capital construction and to see that the country is well served; the bank is not an institution for making profits for private shareholder. This might be accomplished either by public ownership, or by private ownership with limited dividends; or by banks chartered to serve particular industries and run on a mutual plan. In this connection it is to be noted that, in theory, many of our largest and most successful financial institutions today are nonprofit; for instance, savings banks and mutual insurance companies. Apparently it is perfectly possible for large financial institutions to be organized and run without the necessity of a set of stockholders asking for profits. The bulk of investment today is probably done through just such channels. There is, therefore, no reason now for assuming that a stockholder's profit is somehow essential to run an effective financial institution.

Though essentially nonprofit, any capital credit system must be rigidly nonpolitical. We have been in the frying pan of having the flow of investment credit used in large measure to build up private positions of power; and the resulting dangers are obvious. This is not a reason for jumping into the fire of a public institution under political control whereby a politician uses the mechanism to build up his power instead. By consequence, the management of a system of this kind should be entrusted to professionals, who are barred from political connection or office, but who are alive both to the economic and social needs of the country, and realize that political movements largely do reflect those needs.

*(d) Operations*

The conclusion of a capital credit transaction would, presumably, result in the borrower selling to the bank a bond or a set of bonds on agreed terms. To make certain that there will always be an adequate supply of cash for investment purposes, such bonds must be rediscountable with the Federal Reserve. I do not see that an effective capital credit mechanism is possible except as it is tied in to the Federal Reserve machinery. There is some difference of opinion on this subject, particularly in Treasury circles; but I believe that on closer examination the differences of opinion will disappear.

There is no particular reason why the bank may not take, if it chooses, deposits in the same fashion that large private banks such as J. P. Morgan and Company take them today. Such deposits, however, should be definitely less withdrawable than ordinary commercial bank deposits, and this should be distinctly understood. Private deposits so taken consist of "savings"—that is, currency or credit not created by the process of the loan, but withdrawn from the flow of currency and credit adapted to the floating supply of goods. Conceivably also a capital credit bank might issue its own debentures for sale in the open market (if its operations were adjusted so that it was making an interest profit), but these again would have to be limited to the commercial operations of the capital credit bank, since, in this case, it would have to bid for savings and for that purpose would have to offer an interest rate. The public and quasi-public functions of the bank would have to be financed primarily through the creation of reserve credit.

A system of such banks might be either.

(1) created as a division of existing commercial banks;

(2) created as a new national or regional system; or

(3) created dividing the various capital banks functionallly, as capital credit banks primarily interested in transportation; others primarily interested in particular lines of manufacture; others particularly for the purpose of serving quasi-public and public needs.

It probably is not practicable to construct a system of this kind out of the existing commercial banking field. This is not because of any inherent impossibility. It is because commercial bankers have been trained for generations in the classic

system—that is, that the job of their bank was not to supply capital. The training was right in connection with their present function; but it is, of course, wrong when they are asked to perform an almost exactly opposite function. The real difficulty would lie in securing men of elasticity and training. Logically, if private units were used as a base for all or any part of such a system, the solution would be to permit existing banking firms to apply for charters as capital credit banks, where the record of the investment banking firm demonstrated that it was successful in applying capital to the creation of the need for plant. This could not be satisfactory as an entire solution, however, because investment bankers have been, naturally enough, trained only in the pure profit system. They could, perhaps, handle that part of the capital credit banking machinery designed merely to serve private and commercial needs. For the quasi-public and public needs, one would expect to find personnel rather in the younger men who had been trained in nonprofit systems, such as savings banks or mutual life-insurance companies, and who would, under a new system, be performing much the same functions which they had been doing up to the present, except that instead of having to think of securing repayment of the loan plus a commercial interest rate, they would now have to think only of securing repayment of the loan plus a nominal interest rate for the purpose of paying running expenses, plus an added amount collected as a reserve against losses.

The regulations governing the administration of such a banking system ought to be so framed as to free them from the regidities which now obstruct the flow of capital. For instance, a capital credit bank which holds a portfolio of bonds or obligations, not primarily designed for resale, can do a number of things impossible in the investment market. If it is dealing with a commercial instrument it can, for instance, demand a base rate of interest, but make it flexible, so that in a good year more is paid, in a bad year less is paid; so that, in a word, a rigid interest rate does not assert a constant pressure against the industry at a time when the industry may not be able to pay it. In this respect, it would be possible to put into effect the theory recently expressed by Mr. Jerome Frank, namely, that in a large measure, and in many fields, a fixed or rigid interest rate no longer conforms to commercial need.

*(e) Interest rates, public and private*

In quasi-public or public fields, the flexibility must be even greater. There, the community as a whole is paying for the wealth; and there is no real reason for an interest rate except to set up a reserve for the inevitable mistakes which are made when construction is undertaken which does not add to the wealth of the community. The only other use for an interest rate in this connection would be to discourage the tide of construction when it appeared to be too high. The amortization rate could be made flexible, but there is a solid reason for its existence, namely, to complete the supply of capital credit in accurate relation to the existing capital assets. Yet the amortization might be made flexible so that at any given period it did not bear too heavily. We are merely at the threshold here of a long exploration of financial method which has yet to be done.

Finally, the capital credit banking system must justify its existence as much by enlarging the basis for capital operations, as by supplying the capital operations which are now conventional. Probably the most constructive contribution it will make will be opening up a new layer of enterprise, which is not now comprehended within the private profit field. For this reason, I have ventured to emphasize the quasi-public and public elements involved. A single illustration may suffice.

According to the hospital survey of New York (United Hospital Fund of New York, 1938) New York City alone will need, over the next twenty years, in capital construction for hospitals (land, buildings and equipment) an investment of $428,000,000. This is not to create a millennium, but to keep the health plant of New York City approximately at par.

Humanitarianism aside, this represents a possible construction market of nearly half a billion dollars in a single activity, and in a single city. It is simply absurd to say that there is no outlet for capital constructive ability with this sort of need in existence. It is possible over a period of, say, thirty or forty years—within the life of the hospitals—for New York City to borrow and repay a half billion dollars. It is probably not possible for it to borrow and repay a billion dollars—the amount of capital construction doubled by the interest rate—without sacrificing a huge amount of other, needed, construction. Eliminate the interest rate, and you have uncovered a new market. It is true that instead of being organized by a private enterpriser, this new market is organized and put into action by public or semi-public bodies; but the economic effect of this construction is quite as great as though a private enterpriser had decided to build a half-billion dollar railroad.

A major objective of the capital credit system must be to open up, as an enlarged field of activity, necessary non-profit enterprises quite as much as necessary profit enterprises.

How rapidly a capital credit mechanism will need to develop this class of enterprise need not be discussed here. Were there a general stoppage of industry in the country, it might have to develop such enterprise with great speed. If such development is not needed now (I personally think a great deal of it is needed), the powers of a capital credit banking system to that end still ought to be in existence as an insurance policy against the next depression.

There has been some discussion of the type of security which a capital credit bank should be able to buy. The extremely conservative policy suggests the purchase of high grade securities only, leaving capital which should be represented by first or second lien securities to shift for itself. The more radical conception is that the capital credit bank should be prepared to buy anything, including equities; that, indeed, it is more important that it should purchase equity securities which do not find ready market than seasoned or top securities which do. The fear arising from this latter proposal rests, of course, on the fact that where the bank purchases securities which carry management power with them, the bank becomes a potential owner and operator of business. There is perhaps no reason for attempting to resolve the controversy here. Obviously, capital credit banks cannot become vehicles of general control of great chunks of miscellaneous industry; there is no reason to assume that this type of "banker control" would prove more satisfactory than the banker control exerted by the investment banking groups. Yet if it is recognized that today management has very little to do with ownership, and that the important thing in business enterprise is to get a good manager and watch him, it may well be that an intermediate use of junior lien securities might be worked out. This is mentioned merely as indicating that the range of measures available is such as to make a number of solutions possible, avoiding either the danger of too much management by the bank, or the danger of leaving it in a wholly helpless position.

### IV. THE NECESSARY CONTROLS

The controls of such a system are so important that they justify a separate word. Briefly, controls must be in existence which will prevent the creation of currency and credit for capital purposes from so increasing the supply and circulation of currency that it will affect the price level. This is the effect loosely called "inflation."

#### (*a*) *Open market operations*

The classic reason why commercial banks did not like to create credit or currency against a capital loan was a thoroughly good one. Where a loan was extended and bank credit or currency created for the purpose of bringing into existence a supply of floating goods headed for consumption or final use, the supply of currency and credit, though it was increased, met an equivalent increase in the supply of goods; and the price level was thus kept in balance. But if currency or credit were created against a static asset, like a building, the currency and credit operated on the floating supply of goods and not on the building (or at least only to a limited extent on the building). The currency and credit floated into the banking system. Since the floating supply of consumers' goods is more or less constant, it is obvious that the price level could be thrown out of gear at once were any considerable part of permanent or capital assets coined into currency, and the currency turned loose on the community for use in buying and reselling consumers' goods. For this reason, every banker has been firmly taught that the creation of currency and credit cannot be legitimately used where it is based on capital assets. The famous experiment of creating currency against capital assets by the issue, during the French Revolution, of *assignats* based on land, has been the classic illustration. That same danger exists in any capital credit banking system where bank credit and currency can be created against a capital loan.

It may be noted, in passing, that this precise danger exists in the United States at this minute. In practice, we are doing just this under our existing fiscal system. Because the capital markets have been closed, we have entered into a public works program. We have financed that program by issuing government bonds. The bonds have been in large measure sold to the banks; and the banks have paid for them by creating deposits—that is, currency. We have been, in a word, creating bank credit and currency against public works, represented by government bonds. So long as this is kept within reasonable limits, and so long as there is not vigorous commercial demand for loans, there is no inflationary

effect. As the amount of such credit increases, however, and in the event of a business upturn, there may be danger that the amount of bank credit and currency created, coupled with a rapid increase in the speed of its circulation, will upset the price levels and have, therefore, an inflationary effect. In coping with this danger under a capital credit system such as that here suggested, we are merely coping with a danger with which we must deal in any event.

The logical answer to a supply of currency and credit unduly expanded lies in the ability to reduce the amount of that currency and credit by appropriate reserve banking control. The principle has been established in the so-called "open market" operations of the Federal Reserve System. By selling bonds at any given time in the open market, the supply of bank credit and currency is reduced to any needed point.

Though this establishes the principle, the amount of bonds held in the Federal Reserve System at the present time, and its consequent buying power, is not sufficient to expand or contract the amount of bank credit which would be created by a capital reserve system. For that matter, it is not sufficient to contract adequately the supply of currency and credit we have out today; and its operations to be effective would have to be augmented by Treasury operations such as the resterilization of gold and other similar processes.

What is needed thus appears to be an "open market power" on a national scale, operated by the Treasury and the Federal Reserve combined, or by the Federal Reserve acting for the Treasury, as the case may be, by which there could be sold to banks government bonds in volume sufficient to demonetize, when necessary, any dangerous excess of bank credit and currency.

It is true that the banking system would have to accept the responsibility for operations of this kind. I believe that bankers generally are prepared to do this; that they do not claim that the banking community, like a House of Lords, can exercise a veto on social and national policies by the threat of throwing the currency system out of gear; that they realize their business now is to maintain a smooth, adequate, and effective flow of currency and credit.

There are, of course, subsidiary open market operations which would produce similar result. For instance, the capital credit banks could sell their own debentures on a large scale. Or they can sell the paper they held out of portofolio to commercial banks; and may well adapt the type of paper they buy with that in mind.[1] In combination, these should produce the possibility of open market operations adequate to maintain the supply of currency and credit on an even keel in relation to floating goods, and therefore avoid inflationary effects on the bank level.

The steady amortization of loans made from a capital credit system would in itself act as a steady brake on undue expansion of the currency and credit system.

If necessary, the reserve powers of the Treasury in connection with sterilization of gold and the like could be called in as an added factor, though if the Reserve System is properly run there should be no need of this.

### (*b*) *Use of the interest rate*

Decisions as to open market operations are inherently the province of the Federal Reserve System. That System is charged with the responsibility of keeping the supply of bank credit and currency in approximate order; and for this reason a capital credit system must be keyed into the Federal Reserve which can, when necessary, accelerate or slow down the operations of that system by requiring higher or lower interest rates, or by stiffening amortization terms. When necessary, the Federal Reserve would supplement these by balancing open market operations; and if a situation is really serious, it should be in a position to request the Treasury to use its extraordinary powers to assist.

### (*c*) *Limiting or suspending rediscount privileges*

A second great control must be the power of the Federal Reserve to limit or suspend rediscount privileges whenever necessary to prevent expansion of the supply of currency and credit. This is the logical extension of its power to raise the rediscount interest rate. When capital expansion proceeds too fast, the logic of the situation calls for limiting creation of credit for that purpose. Enter-

[1] For example, a long-term loan might be represented by serial notes. As the maturity of any note approached within, say, a year or two, the note becomes available for sale to a commercial bank. Again, if bonds are purchased with a low interest rate, it will be perfectly possible to divide them so that part of the bonds carry a rate of interest making them attractive in the open market, while the balance of the bonds carry only a nominal rate of interest. In this way, part of the securities would always be available for resale.

prises desiring capital will then have to bid for savings in the open market; and open market operations by the Federal Reserve can even restrict, were it absolutely necessary, the amount of savings which could be easily diverted.

Summarizing, the three major controls must be these:

(1) Open market operations on a large scale, which might be carried on by the Federal Reserve in conjunction with the Treasury, and would presumably dovetail with the entering of the Federal Government into the bond market;

(2) The right to raise and lower rediscount rates, and by regulation to require the credit banks to raise or lower the interest and amortization rates they charge;

(3) The power to limit or suspend rediscount operations altogether.

### V. CONCLUSION

Certain points may be touched on in conclusion.

It is sometimes said that any idea of capital credit banking is "radical". This, though not argument, is worth a word of examination. Actually, it will be found that most businessmen engaged in actual production—that is, businessmen who are not in banking—are pretty clear themselves that there must be some redical overhauling of the banking system. Faced with the constriction of economic activity as it flows through the bottleneck of finance-capitalism as at present organized, they seek avenues of escape.

The radicalism of the suggestion fundamentally lies only in a single field. Control over economic expansion today lies chiefly in certain groups mainly allied with the investment banking operation. Development of capital credit banking undoubtedly does shift that control. New centers are set up; centers which should be more responsible to the public, and carried on by groups which, by their nature, assume greater responsibility for maintaining a continuous economic flow.

No mere change of the capital banking system will supply the ultimate and basic need for men and organisms whose actual business is organizing production for the creation of useful wealth. Private enterprise has done this almost entirely in the past. Private enterprises, quasi-public groups and wholly public groups may have to do so in the future. No one now can foresee the ultimate nuclei; and, indeed, a banking system should be so organized that it will permit any effective nucleus to be used, as economic logic may dictate. The drive which sets men to work is quite as much moral as financial. Plenty of energy certainly exists in the United States. Work like that of LaGuardia in New York, of Nathan Straus in the housing field, of Lilienthal and Morgan in the electric-power field, efforts of hosts of men in less spectacular areas is quite as significant, today, as the work of a Harriman, a Huntington, or a Carnegie of yesterday. Both types are creators of wealth; and we need not undertake to decide which, in the long view, is most needed. A credit system can be evolved which will furnish all the necessary material to put both groups to work, if needed. But the will to work proceeds from the desires of men to create something useful, whether for profit, as monuments to themselves, or out of a purer spirit of public service or altruism.

### VI. RECOMMENDATIONS

It seems to me that the T. N. E. C. can now, and should promptly recommend three things:

*First*, that there be drawn, passed, and put into operation, a bill creating a Public Works Finance Corporation, with suitably guarded rediscount privileges at the Federal Reserve Bank. This would make it possible for the self-liquidating Public Works Agencies of the United States Government to finance directly, instead of through a Federal project. Like privileges could be extended to the municipalities and local units, so that housing, hospitals, and other necessary local improvements could be carried on, without reference to the Federal project. Such institutions could quote any rate of interest which was necessary to get the business done. The rate of interest ought to be almost nil in a nonprofit enterprise like a hospital, and running up to commercial rates in a straight business proposition.

*Second*, that a bill to insure loans for a small business be drawn and passed. This would mean that the small enterprise had just as good access to the capital markets and to banking facilities as the large corporations. It would put the small man who cannot finance internally on a par with large corporations.

*Third,* this committee should appoint a special subcommittee, to study out and to report to the next Congress, a bill providing for capital credit banks, whose business it should be to provide capital for those enterprises which need it, when they need it; and it should make that capital equally available to the Government or to local units for public work, when public enterprise went into action, or to private enterprise when private enterprise, either new or old, needed the assistance.

With these three bills, we should have the elements for a modern financial tool kit. These would not solve all our problems. They are no panacea, but they would give tools so that initiative and ideas could go to work, and so that our financial system could do what is expected of it, namely, to permit men, materials, and ideas to combine in satisfying the obvious needs of the country; and in meeting the increased demands which the less fortunate part of our population properly make on the system as a whole.

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EXHIBIT No. 621

*Estimated expenditures for cotton articles by nonrelief families* July 1935–June 1936*

[Preliminary, subject to revisions]

| Income Classes | Families in United States [1] | Wearing Apparel | | | | Household Items | |
|---|---|---|---|---|---|---|---|
| | | Husbands | | Wives | | | |
| | | Total Expenditure | Per Family | Total Expenditure | Per Family | Total Expenditure | Per Family |
| | *Number* | *Thousand Dollars* | *Dollars* | *Thousand Dollars* | *Dollars* | *Thousand Dollars* | *Dollars* |
| Under 500 | 2,585,515 | 14,603 | 5.65 | 9,043 | 3.50 | 4,233 | 1.64 |
| 500–1,000 | 6,107,453 | 52,352 | 8.57 | 29,672 | 4.86 | 20,318 | 3.33 |
| 1,000–1,500 | 5,955,204 | 64,547 | 10.84 | 37,175 | 6.24 | 33,796 | 5.68 |
| 1,500–2,000 | 4,079,636 | 52,222 | 12.80 | 30,381 | 7.45 | 28,898 | 7.08 |
| 2,000–3,000 | 3,669,732 | 56,766 | 15.47 | 33,489 | 9.13 | 36,750 | 10.01 |
| 3,000–5,000 | 1,581,457 | 31,936 | 20.19 | 18,368 | 11.61 | 23,484 | 14.85 |
| 5,000 and over | 793,372 | 25,219 | 31.79 | 13,721 | 17.29 | 22,964 | 28.94 |
| Total | 24,772,369 | 297,645 | 12.02 | 171,849 | 6.94 | 170,443 | 6.88 |

[1] Families not on relief. There were 4,487,080 families on relief which might be added to families receiving less than $500 per year.

*Data on expenditure included in the table equal nearly 50 percent of the estimated total expenditures for clothing and household articles wholly of cotton. Expenditures for infants, and children, and by single persons, institutions, etc., are not included.

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It is estimated that domestic cotton consumption, based on a total of six million bales, is utilized roughly as follows:

| Use | Percent | Bales |
|---|---|---|
| Clothing | 40 | 2,400,000 |
| Household articles | 20 | 1,200,000 |
| Agricultural and industrial uses | 40 | 2,400,000 |
| | 100 | 6,000,000 |

[1] Estimates prepared by Marketing Section, U. S. Department of Agriculture, based on survey records obtained in Consumer Purchases Study conducted by Bureau of Labor Statistics and Bureau of Home Economics, in cooperation with the Works Progress Administration, National Resources Committee, and Central Statistical Board.

*Retail price, approximate amounts of consumer's dollar going for lint cotton, for manufacturing, and for transporting and distributing for specified items of cotton textiles*

[Preliminary, subject to revisions]

| Item | Unit | Selling at Retail for | Cents for each dollar at retail goes for | | | |
|---|---|---|---|---|---|---|
| | | | Lint Cotton [1] | Mfging. | Transporting and Distributing | Total |
| Men's Clothing: | | | | | | |
| Overalls | Pair | $1.00 | 15 | 60 | 25 | 100 |
| Pants, work | " | 1.00 | 9 | 62 | 29 | 100 |
| Shirts, work | Each | .69 | 7 | 53 | 40 | 100 |
| Shirts, dress | " | 1.00 | 6 | 61 | 33 | 100 |
| Underwear: | | | | | | |
| Shirts | Each | .25 | 7 | 60 | 33 | 100 |
| Shorts | Pair | .25 | 6 | 61 | 33 | 100 |
| Socks, dress | " | .19 | 10 | 48 | 42 | 100 |
| Socks, work | " | .10 | 20 | 47 | 33 | 100 |
| Average Men's Clothing (unweighted). | | .56 | 10 | 56 | 34 | 100 |
| Women's Clothing: | | | | | | |
| Dresses, house | Each | .59 | 11 | 56 | 33 | 100 |
| Dresses, house | " | 1.00 | 7 | 62 | 31 | 100 |
| Dresses, street | " | 1.59 | 4 | 61 | 35 | 100 |
| Slips | " | .39 | 6 | 63 | 31 | 100 |
| Slips | " | .59 | 6 | 54 | 40 | 100 |
| Nightgowns | " | .59 | 5 | 59 | 36 | 100 |
| Nightgowns | " | .69 | 7 | 53 | 40 | 100 |
| Stockings | Pair | .25 | 5 | 53 | 42 | 100 |
| Average Women's Clothing (unweighted). | | .71 | 6 | 58 | 36 | 100 |
| Girl's Wear: | | | | | | |
| Dresses, school | Each | .59 | 4 | 62 | 38 | 100 |
| Slips | " | .29 | 5 | 60 | 35 | 100 |
| Nightgowns | " | .59 | 6 | 54 | 40 | 100 |
| Union Suits | " | .29 | 4 | 51 | 45 | 100 |
| Vests | " | .19 | 4 | 62 | 34 | 100 |
| Panties | Pair | .19 | 4 | 62 | 34 | 100 |
| Average Girl's Wear (unweighted) | | .36 | 4 | 58 | 38 | 100 |
| Boy's Clothing: | | | | | | |
| Overalls | Pair | .59 | 13 | 44 | 43 | 100 |
| Overalls | " | .79 | 11 | 47 | 42 | 100 |
| Pants, Short | " | .79 | 6 | 52 | 42 | 100 |
| Pants, long | " | 1.69 | 8 | 51 | 41 | 100 |
| Pants, Knickers | " | 1.19 | 7 | 48 | 45 | 100 |
| Suits | Each | .59 | 7 | 55 | 38 | 100 |
| Shirts | " | .39 | 8 | 61 | 31 | 100 |
| Shirts | " | .59 | 6 | 58 | 36 | 100 |
| Shirts, Polo | " | .29 | 6 | 44 | 50 | 100 |
| Undershirts | " | .19 | 7 | 57 | 36 | 100 |
| Shorts | " | .19 | 7 | 57 | 36 | 100 |
| Union Suits | " | .33 | 5 | 71 | 24 | 100 |
| Pajamas | Pair | .59 | 9 | 48 | 43 | 100 |
| Average Boy's Clothing (unweighted). | | .63 | 8 | 53 | 39 | 100 |
| Infants' Wear:[2] | | | | | | |
| Diapers | Dozen | .89 | 20 | 50 | 30 | 100 |
| Average all wearing apparel (unweighted) | | .59 | 8 | 56 | 36 | 100 |
| Household Goods: | | | | | | |
| Mattresses (50-lb.) | Each | 6.88 | 47 | 25 | 28 | 100 |
| Comforters | " | 1.99 | 20 | 43 | 37 | 100 |
| Blankets (single) | " | 1.00 | 18 | 50 | 32 | 100 |
| Blankets (double) | " | 2.88 | 14 | 44 | 42 | 100 |
| Sheets (81 x 99) | " | .59 | 24 | 54 | 22 | 100 |
| Sheets (81 x 99) | " | .79 | 21 | 61 | 18 | 100 |
| Sheets (81 x 99) | " | .89 | 20 | 54 | 26 | 100 |
| Pillow Cases | " | .23 | 14 | 49 | 37 | 100 |
| Towels (Terry) | " | .25 | 16 | 47 | 37 | 100 |
| Towels (Huck) | " | .16⅔ | 12 | 48 | 40 | 100 |

[1] Based on Lint Cotton at 8 cents per pound except for mattresses; lint cotton for mattresses at 6 cents per pound.

[2] Some Infants' wear items included under Girls' Wear and Boys' Clothing.

*Retail price, approximate amounts of consumer's dollar going for lint cotton, for manufacturing, and for transporting and distributing for specified items of cotton textiles*—Continued

| Item | Unit | Selling at Retail for | Cents for each dollar at retail goes for | | | |
|---|---|---|---|---|---|---|
| | | | Lint Cotton | Mfging. | Transporting and Distributing | Total |
| Household Goods—Continued. | | | | | | |
| Bedspreads (Chenille) | Each | $2.99 | 10 | 54 | 36 | 100 |
| Bedspreads (Jacquard) | " | 1.99 | 14 | 46 | 40 | 100 |
| Average Household Goods (unweighted). | | 1.72 | 19 | 48 | 33 | 100 |
| Piece Goods: | | | | | | |
| Denim (31") | Yard | .19 | 27 | 39 | 34 | 100 |
| Drills (32") | " | .17 | 25 | 49 | 26 | 100 |
| Broadcloth (36") | " | .16 | 13 | 59 | 28 | 100 |
| Nainsook (36") | " | .10 | 14 | 61 | 25 | 100 |
| Pajama checks (36") | " | .19 | 13 | 53 | 34 | 100 |
| Muslin, unbleached (36") | " | .07 | 36 | 43 | 21 | 100 |
| Muslin, bleached (36") | " | .10 | 16 | 59 | 25 | 100 |
| Percale (36") | Yard | .14 | 17 | 58 | 25 | 100 |
| Towelling (16") | " | .08 | 21 | 60 | 19 | 100 |
| Average Piece Goods (unweighted) | | .13 | 20 | 54 | 26 | 100 |
| Average all Wearing Apparel, Household Goods, and Piece Goods (unweighted). | | .76 | 12 | 54 | 34 | 100 |

Data prepared by Marketing Section, U. S. Department of Agriculture.

EXHIBIT No. 622

United States Department of Agriculture

Federal Surplus Commodities Corporation

APRIL 18, 1939.

FACTS ABOUT THE FOOD STAMP PLAN TO BE TRIED OUT IN ROCHESTER UPON AN EXPERIMENTAL BASIS

Secretary of Agriculture Henry A. Wallace announced today that Rochester, New York, would be the first of a half-dozen cities in which the new food-stamp plan for distributing surpluses through the normal channels of trade would be started. Actual operation of the plan is expected to begin in that City within the coming thirty days.

The plan, which was announced March 13 by the Department of Agriculture following unanimous endorsement by the National Food and Grocery Conference Committee, contemplates wider consumption of surplus farm products by increasing the purchasing power of low-income families. Distribution of surpluses will take place through wholesale and retail grocery outlets in Rochester during the experimental period of from two to four months. Grocers in Rochester have indicated their willingness to push the sales of surplus products to all consumers under the plan. These increased purchases, together with those of the people eligible to use stamps, are expected to give the farmer a broader market for what he produces and to stimulate business generally.

Decision to try the plan first in Rochester was based on conferences there during the past two weeks between Philip F. Maguire, Vice President of the Federal Surplus Commodities Corporation, and representatives of State, county, and local public welfare agencies, city and county officials, and members of the wholesale and retail food trades.

"Pledges of one-hundred-percent cooperation on the part of all groups and excellent facilities for checking the operations and determining the accomplishments of the plan were factors in deciding upon that City as a splendid one in which to make the first test," Mr. Maguire said. With a population of 330,000,

Rochester has several thousand families who are receiving some form of public assistance. Nearly 5,500 heads of families are employed on W. P. A. projects.

The regular program of the Federal Surplus Commodities Corporation, under which the Government buys surpluses direct and donates them to state welfare agencies for distribution for relief purposes, will be continued for the present in all areas except Rochester and five other experimental cities yet to be named.

Two variations of the food-stamp plan, both of which are voluntary, will be tried out in Rochester, it was announced. Under one, W. P. A. workers may request that an amount equal to $1 a week for each member of the family be deducted from their wages. Such workers will receive orange stamps good for the purchase of any food in an amount equal to that which they have asked to be deducted. While the $1 a week for each member of the family would be the minimum amount which could be obtained, such workers will be eligible to obtain orange stamps of a value up to approximately $1.50 a week for each member of the family if they wish. In addition, blue stamps, representing fifty percent of the value of the orange stamps issued to each person and good only for foods designated as surplus, will be given free.

The other plan makes the same minimum of $1 in orange stamps and maximum of about $1.50 in orange stamps available for purchase by the person receiving general relief, old-age assistance, aid to dependent children, and aid to the blind. With every one dollar purchase of orange stamps, these eligible persons will receive free fifty cents in blue stamps good for exchange for certain designated surplus foods at any grocery store. Arrangements are now being worked out for redemption of the stamps locally by grocers who accept them for food. The stamps will be redeemed by the Government from funds already available to the Federal Surplus Commodities Corporation. These are the same funds now being used to purchase surplus commodities for donation to state welfare agencies.

Stamp books, similar to those used for postage stamps, and including both orange and blue stamps in a ratio of two to one will be made available for purchase by eligible persons in Rochester at places yet to be designated. The value of the orange stamps in the book will range from $2 to $10. While the surplus food products, for which blue stamps will be used, have not yet been officially designated, some of those on the list are expected to be the same as those the Corporation has purchased and distributed in the past. These probably will include such commodities as butter, grapefruit, oranges, dried fruits, beans, and eggs. Fresh vegetables might be added as they come into surplus later during the season.

Announcement of the selection of other cities in which the plan will be tried will take place after surveys now under way are completed. It is planned to announce the remaining cities one at a time. The remaining five cities to be designated for trying out the food stamp plan experiment will be in widely scattered sections of the country and will be selected as soon as possible.

In announcing the launching of the food-stamp program, Secretary Wallace said, "At the same time that many American farmers suffer from producing too much, millions of American families suffer from not having enough to eat.

"Unused farm surpluses don't mean real abundance at all. Often they mean waste and scarcity—substandard diets for millions of town and city families and ruinous incomes for farm families. The demand for many of the most health-giving foods—such as fruits, fresh vegetables, butter, eggs, and milk—is influenced greatly by the size of city families' incomes. If they have enough money, they buy these foods freely. If their incomes shrink, they buy far less of the protective foods that are necessary to a balanced diet. Then farm surpluses pile up and go to waste.

"As long as people in this country lack food, the sensible thing to do with farm surpluses is to make them available to undernourished people, so far as that is possible. This will not solve the whole farm problem, of course, any more than it will solve the whole relief problem. But it can go a long way toward helping both farmers and consumers. Farmers need a broader market for their products, and low-income consumers need a more adequate diet.

"The food-stamp plan will give eligible families a chance to increase their purchases of surplus vitamin-rich foods. Estimates have been made that many millions of people in the United States spend an average of $1.00 a week, or less, for food for each person. That is not quite 15 cents a day; about a nickel a meal. Such wholly inadequate expenditures mean price depressing surpluses for farmers and diets for low-income families inadequate to maintain minimum standards of health. Other studies indicate that, on the average, $1.50 a week is the smallest sum that will provide a city dweller with an adequate diet. The food-stamp plan is designed to achieve this objective.

"As I have already stated, if the new plan succeeds it will make three distinct contributions to the public welfare.

"1. It will get more surplus farm products into consumption. That will help agriculture.

"2. It will provide more and better food for low-income families. That will improve the public health and benefit the future of our people.

"3. It will increase the volume of merchandise moving through the normal channels of trade. That will help all business.

"As the new plan is tried out, I am confident it will have the cooperation of farmers, housewives, and businessmen. This is a splendid opportunity for us all to prove that united effort is the way to plenty."

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EXHIBIT No. 623

United States Department of Agriculture

Federal Surplus Commodities Corporation

MAY 1939.

THE FOOD-STAMP PLAN

WHY IT IS BEING TRIED OUT AND HOW IT WILL WORK IN ROCHESTER

A new way of distributing surplus foods is being tried out in Rochester. Instead of giving surplus commodities to States, counties, and cities which in the past have distributed them to people receiving public aid, the Federal Government will give food order stamps to these people directly. The stamps, which will be colored blue, can be taken to grocery stores, where they can be used to obtain surplus foods as additions to the present family food supplies.

Everyone who has been eligible to receive surplus commodities in the past will now be eligible to apply to receive food stamps. In addition, Rochester people working on W. P. A. jobs, and all other persons receiving or certified for any form of public aid, can get the stamps if they want them.

The food-stamp plan is being carried out by the Department of Agriculture in cooperation with city, county, and State welfare agencies and the grocers of Rochester. The idea is to make use of some of the farm products of which there has been a surplus because people did not have the money to buy them. Many families have been going without enough of the foods that are needed to keep children and grown-up people healthy, at the very same time that farmers had more of those foods than housewives could buy.

The main idea of the food-stamp plan is the same as the idea of the commodity distribution that people in Rochester are familiar with—to use part of the farm surplus to give city families a chance to have better balanced diets. However, the stamp plan is different from the old distribution plan as it operated at Stillson Street Depot.

In the future there will not be any surplus commodity depots for Rochester people. The Department of Agriculture will name the surplus-food products. People using the stamps can go right to grocery stores that are cooperating in the program and use the surplus-food order stamps to get any of these surplus commodities that they want. People using the stamps will have a wider variety or surplus commodities to choose from than they had at the distribution depot.

The surplus-food stamps will be colored blue. One will be given free with every two orange stamps purchased. The orange stamps will be good for the purchase of any food usually sold in a grocery store. The people who are eligible to receive the blue stamps free must pay 25 cents each for the orange stamps. Each stamp, whether orange or blue, is good for 25 cents worth of food. For each $1 worth of orange stamps bought, the family will receive 50 cents worth of blue stamps free. For example, a family which buys $8 worth of orange stamps will get $4 worth of blue surplus-food stamps without extra cost.

Details of how to get the food stamps and how to use them are given in the following questions and answers.

1. Q. What kinds of stamps will be issued?

A. Blue stamps and orange stamps. The blue stamps will not cost anything. They can be used only for obtaining surplus-food products. Each one will be good for 25 cents worth of these foods. The orange stamps will cost 25 cents each, and each one will be good for any food product, whether it is surplus food or not.

2. Q. What foods are surplus?

A. The products which the Secretary of Agriculture has declared to be surplus and which are listed in the Federal Surplus Commodities Corporation Bulletin as food products for which blue surplus-food order stamps may be used. The first bulletin will probably include such commodities as butter, grapefruit, oranges, dried fruits, beans, and eggs. Fresh vegetables might be added as they come into surplus later during the season.

3. Q. Can the list of surplus foods be changed?

A. Yes. The list may be changed from time to time. If the surplus of a product is used up, that product will be taken off the list. If the surplus of some other product piles up, that product will be added to the list. Official lists of surplus commodities that can be bought with blue stamps will be sent to grocery stores to be posted there. Any change in the list will be given wide publicity.

4. Q. Will orange stamps be good for anything except food?

A. Yes. Orange stamps can be used to get household articles usually bought in grocery stores, such as starch and soap. However, orange stamps *cannot* be used to get beer, wine, liquor, or any kind of tobacco, or food usually eaten at stores.

HOW TO GET THE STAMPS

5. Q. Who is eligible to receive food stamps?

A. Any person certified as eligible for public assistance or who is at work on a W. P. A. project, or any person receiving public assistance under the social-security program or direct assistance from State, county, or city agencies such as general or home relief, old-age assistance, aid to dependent children, and aid to the blind.

6. Q. Can persons certified as eligible for public assistance, but not actually receiving it, obtain stamps?

A. Yes; they can buy the orange stamps on the same basis as those who are receiving general relief or public aid under the social-security program or other forms of public assistance.

7. Q. Can blue stamps be obtained separately?

A. No. Blue stamps will be issued only to eligible people who buy the required minimum amount of orange stamps. The blue and orange stamps will be issued together, in the same books.

8. Q. Will all books contain the same number of stamps?

A. No. Books will be issued in the following five different sizes to take care of different size family groups:

$2 worth of orange stamps and $1 worth of blue stamps.
$4 worth of orange stamps and $2 worth of blue stamps.
$6 worth of orange stamps and $3 worth of blue stamps.
$8 worth of orange stamps and $4 worth of blue stamps.
$10 worth of orange stamps and $5 worth of blue stamps.

9. Q. How many stamps can one person get at one time?

A. At lease enough to supply $1 worth of orange stamps a week for each member of his family. If a man has a wife and two children, he may buy $4 worth of orange stamps for each week between the days on which he gets his W. P. A. wages or relief payment. If he is paid twice a month, he may buy $8 worth of orange stamps for each pay period. Such a man buying $8 worth of orange stamps would get $4 worth of blue stamps good for surplus food.

10. Q. Can a person buy more than $1 worth of orange stamps a week for each person in his family?

A. Yes. If he wants to he can buy orange stamps at the rate of about $1.50 a week for each member of his family.

11. Q. How will a person employed on a W. P. A. job pay for orange stamps?

A. If he requests, deductions will be made from his wages to pay for the orange stamps he will be eligible to buy. For example, if he gets $20 each pay day and is eligible to purchase $8 worth of orange stamps for the two-week period he will, if he requests, receive a check for $12 and with the check will receive $8 worth of orange stamps, together with $4 worth of free blue stamps.

12. Q. How will a W. P. A. worker apply for stamps?

A. He will be given a form to make out, and on this form he will tell whether he wants the minimum amount or maximum amount of orange stamps he is eligible to receive each pay day.

13. Q. Where can W. P. A. workers get application blanks?

A. They can get application blanks from their project foreman.

14. Q. How will eligible people other than W. P. A. workers get orange stamps?

A. They can buy the stamps with cash from their relief payments. They can

cash their checks as they have in the past, and use part of the money to buy the orange stamps.

15. Q. Where will stamps be on sale?

A. At the Old Post Office Building, on the corner of Fitzhugh and Church Streets.

16. Q. Will identification be necessary in order to buy orange-colored stamps?

A. Yes; it will be necessary for each eligible person to bring the special identification card that will be mailed to him for this purpose, in order to be able to buy the stamps.

17. Q. If, rather than use his stamps, an eligible person needs to get all or a part of his money back on the orange-colored stamps he has purchased, may he do so?

A. Yes, if because of some emergency he needs to, he can get his money back on the orange stamps he has not used provided the person to whom the stamps are issued returns them together with blue stamps in the same ratio in which they were received.

HOW TO USE THE STAMPS

18. Q. What stores will accept stamps in return for food?

A. All grocery stores that wish to take part in the plan.

19. Q. Can the stamps be used in grocery stores outside the city limits?

A. No; not during the first few months while the plan is being tried out.

20. Q. Can stamp books be traded or sold?

A. No. They can be used only for food and only by the families to whom they are issued. Any holder of stamps or grocer who misuses them will be guilty of a misdemeanor and subject to a fine and imprisonment.

21. Q. Can stamps be used to pay a bill or an account already owing to a grocery store?

A. No. Stamps cannot be used to pay old bills or accounts.

22. Q. Will stores accept stamps that have been taken out of books?

A. No. The stamps must be taken out of the books at the time they are used in making purchases.

23. Q. Can anyone besides the person to whom the stamps are issued use them in grocery stores?

A. Yes; either the person to whom they are issued or a member of his family may bring the book to the grocery store and use the stamps for food. If the grocer does not know the person who brings in the book he can require that person to identify himself.

24. Q. Must persons save the books after all the blue and orange stamps are used?

A. Yes; because the empty covers must be turned in before new books can be bought. This will be true of all book covers except those bought the last time. These must be turned in at the time the next purchase of stamps is made. For example, if an eligible person gets his first book of stamps on the 15th of the month, he can get his second book on the last day of that month or during the early part of the next month without turning in the covers of the book purchased on the 15th. However, before he can get his book of stamps on the 15th of the next month he must turn in the cover of the book he received on the 15th of the month before. W. P. A. workers also must turn in empty books which are more than one pay period old.

25. Q. Can an eligible person buy additional stamps if he loses the cover or the book that was issued to him previously?

A. Yes. A person who loses a book or cover will be eligible to buy additional books in the prescribed manner if he signs an affidavit form to the effect that there has been such loss.

26. Q. How can the stamps be used in stores?

A. Grocers will accept each stamp at its full face value. One 25 cent orange colored stamp is good for 25 cents worth of any food. One 25 cent blue stamp is good for 25 cents worth of any food that is on the surplus list.

27. Q. Can orange colored stamps be used for food of the kind that is usually eaten at the grocery store?

A. No. Orange stamps cannot be used for food which is usually consumed on the premises of a store.

28. Q. Will a person using blue stamps to buy foods on the surplus list get exactly the same products as people who pay cash?

A. Yes; and at the same price.

29. Q. Can grocers give change to customers using blue or orange colored stamps?

A. No.

30. Q. If food that costs less than 25 cents is bought can stamps be used?

A. Yes; if the grocer will agree to give the customer credit for future delivery of surplus food if a blue stamp is given to him, or credit for future delivery of any food if an orange stamp is given.

31. Q. If food is bought that costs more than 25 cents but less than 50 cents, or more than 50 cents but less than 75 cents and so forth, what can be done?

A. The holder of the stamps can do one of three things: (1) He can pay in cash the amount over 25 cents or 50 cents or 75 cents as the case may be. (2) If the grocer will agree, the holder can get credit fur future delivery of surplus food if a blue stamp is given, or the holder can get credit for future delivery of any food if an orange stamp is given, or (3) The holder can increase his purchase of surplus food up to the value of the next blue stamp or his purchase of any food up to the value of the next orange stamp as the case may be.

32. Q. Will surplus commodities be distributed from relief depots to Rochester people as they have been in the past?

A. No; not while the experimental food stamp plan is in operation.

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## Exhibit No. 624

Statement of Dr. Will Alexander, Administrator Farm Security Administration, Introduced into the Record at the Hearings on Savings and Investment Before the Temporary National Economic Committee, May 24, 1939

Approximately 3,000,000 American farm families are existing today on abnormally low incomes and at unwholesomely low standards of living. Many are in extreme poverty. Almost 2,000,000 rural families were on relief in 1935; and relatively few of them are better off today.

Both as producers and as consumers, this group of low-income farm people has been forced to retain primitive standards in a modern world. While American industry has adopted turret drills and automatic machine processes, these families have continued to cultivate the land with one-row, horse-drawn equipment and hand tools. While the big commercial farms have adopted highly efficient machinery and modern agricultural methods, most of these 3,000,000 families still use the same farm management patterns which were common a century ago. While the tides of technological progress have swept on across the country, this group has been left to one side in a sort of stagnant eddy. The effects of this poverty and technical inefficiency on the national economy are little realized.

In 1930 the census reports revealed that about 90 percent of the farm products going to market came from 50 percent of the farms. The other half of our farmers were receiving only one-tenth of the gross cash income from agriculture. Since that time, the growth of industrialized farming has continued to squeeze the more poorly equipped farms out of the commercial market.

At the present time, it is probable that nine-tenths of the farm market is supplied by considerably less than half of the Nation's farms. Mechanization—which usually is associated with large-scale, commercialized farming—has continued at a rapid pace. There were 1,527,989 tractors on American farms on April 1, 1938, more than a third of which had been purchased since 1935. More tractors were sold in 1937 alone than were in use on all American farms in 1920.

As a result, many thousands of tenants and sharecroppers have been forced down to the status of day laborers, with little chance for more than a few month's work a year. On a typical Delta plantation, for example, the introduction of tractors and four-row cultivators reduces the necessary number of tenant families from 40 to 24. Other technological improvements, together with mechanization, have greatly decreased the demand for farm labor. Today it is possible for this Nation to meet the normal requirements in farm production, both domestic and foreign, with 1,600,000 *fewer* workers than in 1929.

In the face of this declining demand for farm labor, the farm population still is growing faster than any other group. The annual increase in the working farm population is now about 445,000 persons. In the past, most of these people would have sought work in the cities, or would have opened up new lands on the frontier. Today the majority of them have no alternative but to join the army of migratory farm laborers, already swollen far beyond normal needs by the families forced off the land by drought and mechanization.

To make matters worse, the largest increase in population is taking place in the areas with the least economic opportunity. The 400 counties with the lowest living standards are the very ones with the fastest growth of population.

In five rural problem areas—regions with much poor land, low income, and high birth rates—15 to 20 percent of the families were on relief in 1934 and 1935, or twice as many as in "normal" areas. Federal aid has amounted in some problem area counties to $200 for each man, woman, and child. In other rural areas the average is below $50 per capita.

The cities offer no haven for this huge surplus agricultural population, because labor-saving machinery has been steadily decreasing the demand for industrial workers. By the middle of 1937, industrial *employment* had recovered to about the 1929 level; but *unemployment* had increased by about 4,000,000—approximately the number of new workers added since 1929. Five years from now, there will be another 5,000,000 new potential workers, nearly half of whom are growing up in farm families.

These problems of surplus population and technological change have been superimposed on a number of less spectacular but even more deeply-rooted maladjustments in our rural economy. For generations the nation's agriculture has been gradually undermined by unsound tenure systems, careless and unscientific tillage practices, widely fluctuating markets, and an appalling wastage of our most important capital asset—the land—through soil erosion. Rural poverty is not an emergency condition, which might be cured automatically by an upturn in the business cycle. Its symptoms were familiar long before the Civil War. For more than a century they compelled the United States to carry on a liberal program of rural relief, under the guise of free land. Until recent times, any farmer who lost his property through foreclosure, or whose acres were exhausted by erosion and one-crop tillage, could move to a new homestead in the west. Today this easy solution is no longer possible. Free land, capable of producing a decent living has disappeared; and we have at last been forced to seek new methods of dealing with the problem of poverty among farm people.

The low income and low living standards of the bottom third of our farm population has shut them out of our productive economy—excluded them as effectively as if they were in another nation. Since they lack the essential capital equipment in adequate land and tools, they are necessarily unproductive. They contribute few goods and services, and they are able to buy only the barest necessities. They represent an untapped potential market far more important than most Americans realize.

The list census disclosed that even in "prosperous" 1929, about 1,682,000 farms reported a gross income of less than $600—and that figure includes all farm operating expenses, and all foodstuffs raised for home consumption. A more recent study by the National Resources Committee indicated that in 1936 more than 1,690,000 farm families had an average income of less than $500 a year; and nearly half of these families had incomes of less than $250 a year. In other words, about 4,000,000 farm people were trying to eke out an existence on an average income of about $1 a week.

The substandard living conditions which a large share of our farm population must endure inevitably means bad health—which imposes heavy costs on the national economy. Malaria, which is largely due to lack of window screens, takes a tremendous toll of labor efficiency, particularly in the South. When a family is so poor that it cannot even afford an outdoor privy, the probability of hookworm infection is extremely high. In one rural county in the South, the Farm Security Administration recently found that about 60 percent of the school children had hookworm disease.

In view of the fact that one child out of every ten comes from the 3,000,000 farm families in the lowest income group, the health menace to the national manpower of the next generation is apparent. It is all the more serious, since few families in this group can afford adequate medical care.

The number of children who grow up ill-equipped physically, however, is dwarfed by the number who are ill-equipped mentally. Low incomes cannot support adequate eduction. The farm population as a whole is expected to rear and educate 31 percent of the nation's future workers. although the farm income is only about 11 percent of the national total. Consequently, an adequate educational system is simply beyond the reach of many agricultural States. Mississippi, for example, would have to spend more than 99 percent of its entire tax revenue for school purposes, if it were to bring its educational expenditures up to the national average.

It is hardly surprising that the 3,000,000 neediest farm families are consuming very few industrial products. The extent of their underconsumption is indicated by the fact that in 1934 more than 25 percent of all American farm homes lacked window screens; more than a third were unpainted; and an additional 30 percent needed repainting. More than 70 percent of our farm homes lacked a kitchen

sink with a drain, and only one out of every ten had an indoor toilet. In the South nearly one-fifth of the farm homes did not even have an outdoor privy.

If farm homes could be brought up to the American standard of living—or even to the minimum standards of health and decency—the building industry would enjoy boom conditions for many years to come. Even in 1929, about 1,500,000 tenant families were living in houses valued at less than $475; and in the South half of all farm *owners* were living in homes worth less than $560. Competent engineers have estimated that it would cost approximately $3,500,000 to put our inadequate farm structures in good repair.

A recent study of the purchase of cotton textiles gives an even better indication of undersonsumption among low income farm families. It disclosed that the average housewife spends $6.94 a year for cotton wearing apparel; but if the family's income is less than $500 a year, her purchases of cotton declines by nearly one-half. The average husband spends $12.02 annually for cotton clothing; but his expenditures for this commodity falls by more than half, if the family income is below $500. Cotton household items, such as sheets and towels, cost the average family $6.88 a year; but for the income class below $500, this expenditure falls to $1.64.

The survey also indicated that if family incomes could be raised to a minimum of $1,500 a year, purchases of this kind of cotton goods would increase by about $208,000,000 annually. Of this sum, about $110,000,000 would go into manufacturing, $70,000,000 into transportation, and $25,000,000 into raw cotton. Comparable increases, of course, might be expected in the consumption of other necessities. The survey gives only a hint of the spurt in industrial profits and employment which might be expected if this low income group could even approach the American standard of living.

There is no single, simple answer to the problem of rural poverty. Industrial recovery would provide an outlet for some of the surplus population which is piling up on the farm; but it would have to go far beyond the 1929 level of activity and absorb millions of urban unemployed, before migration to the cities could be resumed on the old scale. Some way may be found to provide a badly needed expansion of the service employments—particularly education and health—in the rural areas. A housing program to clear out rural slums may develop in the wake of the urban housing movement, as it has in other countries. A stimulation of industry in rural areas, coupled with subsistence farming, might provide a partial solution.

There is still another method of dealing with rural poverty which has proved highly successful, and which involves a relatively small cost to the taxpayer. This is the rehabilitation-loan program of the Farm Security Administration.

Since 1935 the Farm Security Administration has been making small loans—averaging about $350 each—to needy farm families, to enable them to get a new start on the land. Ordinarily such loans are just large enough to finance the purchase of the seed, livestock, and equipment necessary to carry on farming operations. They are repayable over a period of from one to five years at 5-percent interest.

The government takes a chattel mortgage on all goods purchased with a rehabilitation loan, and on any other possessions the borrower may have. As an additional protection for its investment, F. S. A. provides technical advice and guidance in sound farming methods to every borrower, to make sure that every penny of the money is used to the best advantage. Each loan is based on a farm-and-home-management plan, carefully worked out by the borrowing family and the F. S. A. county supervisor. Such a plan is the best possible guarantee that the family will become permanently self-supporting, and that the government's investment will be repaid.

Since this program was started four years ago, the Farm Security Administration has loaned more than $320,000,000 to 750,000 needy farm families—many of whom were once on relief. Judged by normal standards, these families were the worst possible credit risks, since none of them could obtain adequate credit from any other source. Already, however, they have repaid more than $82,000,000 into the Federal treasury, although much of the money will not be due for four or five years. It is estimated that approximately 80 percent of the funds loaned eventually will be repaid with interest. The losses are largely concentrated in areas of the Great Plains which have suffered several years of severe drought.

The annual net cost of the rehabilitation-loan program—including all losses and expenses of administration—amounts to less than $75 for each family aided. This is without doubt the lowest cost to the taxpayer of any kind of help for needy families.

Moreover, rehabilitation differs fundamentally from all other types of aid, because its whole purpose is to help needy families escape the relief rolls and become

f-supporting. It has proved eminently successful in achieving this goal. Although the normal period of rehabilitation is five years, and the program has been in operation for only four, more than 87,000 families already have paid off their loans in full and "graduated" into a self-supporting status.

The remaining families have made surprising gains in their net worth, standards of living, and capacity for self-support. At the end of the last crop year a survey was made of 232,947 typical rehabilitation borrowers. It disclosed that they had increased their net worth—over and above all debts, including their obligations to the government—by a total of $61,817,903 since they first obtained loans. This was an average increase of $265.37 per family, or more than 37 percent.

At the same time, these borrowers had tripled their production of food for home consumption. The average family had increased the amount of fruit and vegetables which it canned from 51 quarts annually to 221 quarts; and its production of milk for home use rose from 99 gallons a year to 465 gallons. Comparable gains were reported in the production of meat and eggs for home use.

This increased production does not mean competition with other agricultural areas, because virtually all of the additional foodstuffs were consumed on the farms which produced them. It does mean better diet and better health for the needy and handicapped families which are taking part in this program. In many cases, rehabilitation borrowers are actually decreasing their production of surplus crops, because they are turning part of their land from cash-cropping to subsistence farming.

The gains in living standards and purchasing power which have been made by Farm Security Administration borrowers have naturally resulted in greater prosperity for the nearby communities. The extent to which local merchants and businessmen appreciate this fact is indicated by a letter which we recently received from Fayette, Mississippi. It is signed by 73 bankers, plantation owners, merchants, contractors, and professional men of Jefferson County, Mississippi, and it reads, in part:

"During the past three years we have seen the program grow from 50 clients at the beginning of 1936 to nearly 400 at the present time. We have observed the fact that very few families have been closed out during that period and that substantial progress has been made by the majority of those on the program. We have seen these families improve their standard of living from year to year through the use of a 'Live-at-home' program. We have observed them buying pressure cookers and fruit jars to carry out this phase of the program, and later have seen the results therefrom. We have observed the fact that every encouragement is given that the children of these families attend school with adequate books and clothing. We have observed that a medical association has been set up in the county which insures adequate medical treatment for each family. We have observed the morale of these families improve from year to year as they progress under the guidance and supervision of your local representatives. All of these things impress us strongly because, as a whole, they benefit the entire county and the results being obtained are apparent.

"Naturally we, as businessmen and taxpayers, are vitally interested in any program which directly affects so many families in our county, and indirectly affects the entire county. We, therefore, wish to express to your conference our unqualified endorsement of the program in this county and our wish that it could be broadened to include hundreds of other low-income farmers who need this service and have not yet been able to obtain it.

"We commend the personnel of your county unit here for their splendid work with these families as evidenced by the progress the families are making and their confidence in, and regard for the local administration. We commend further the fine and courteous spirit of cooperation which exists between the local personnel and the citizens and businessmen of this county.

"Our conclusion, therefore, is that the effects of F. S. A. aid to low-income farmers in this county has been most beneficial and we are asking for more of it."

The rehabilitation work can no longer be called an experimental program. It is an effective, thoroughly tested instrument. It has demonstrated that the neediest farm families can be restored to a self-supporting, independent status. Many thousands of them—which once were a burden on the national economy—already have become productive members of the community. Their newly-created purchasing power is exerting a far-reaching influence on our entire economic machine.

So far, however, the rehabilitation program has never been large enough to reach more than a fraction of the Nation's most handicapped and impoverished farm people. F. S. A. field employes recently reported that they personally knew of nearly 400,000 families which were eligible and in urgent need of rehabilitation loans, but could not obtain them because the money was not available.

Undoubtedly, there are thousands of additional families in equal need, which have not applied for F. S. A. help because they knew that applicants already were being turned away.

A large percentage of this group already is dependent to some extent on relief, or is in danger of being forced onto the relief rolls in the near future. The great majority of them could climb back to decent living conditions and self-support, at relatively small cost to the taxpayer, if adequate funds were available for rehabilitation loans.

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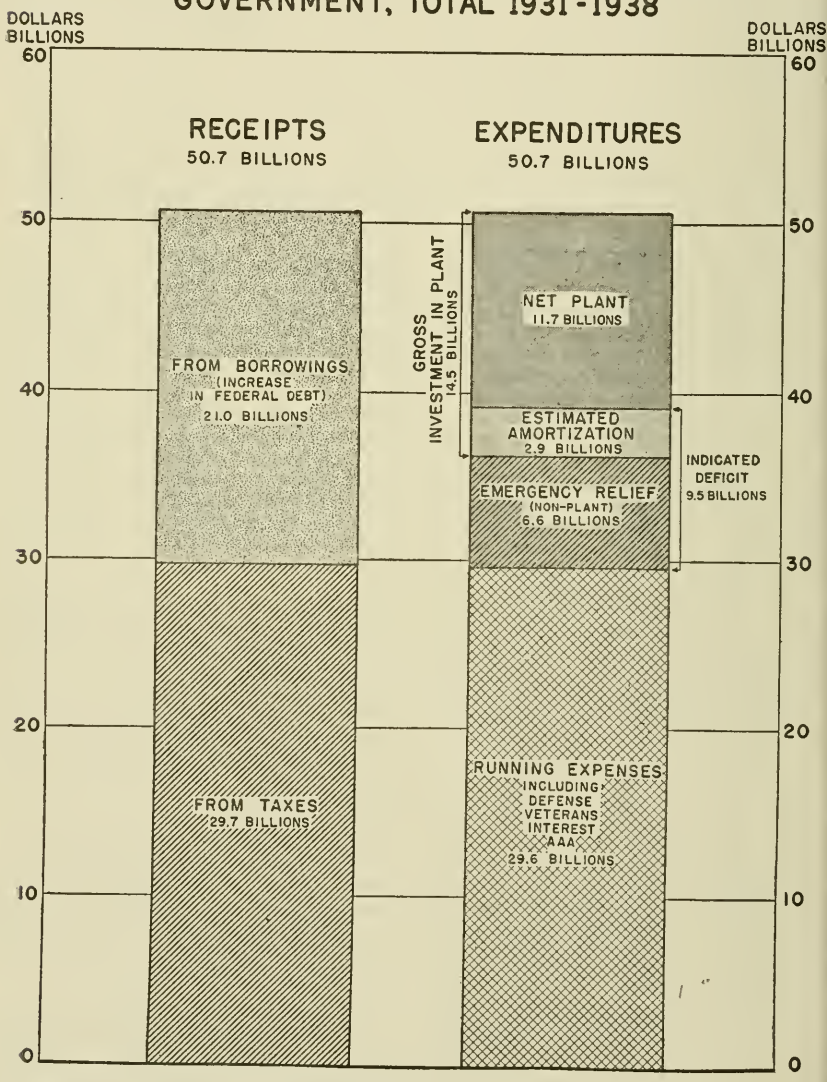
EXHIBIT No. 625

# WAR AGAINST DEPRESSION

## RECEIPTS AND EXPENDITURES OF FEDERAL GOVERNMENT, TOTAL 1931-1938




PREPARED BY THE NATIONAL RESOURCES COMMITTEE.

## EXHIBIT No. 625

[Chart based on following statistical data appears on p. 4090]

*Double budget for the United States, fiscal years 1931–1938*

OPERATING BUDGET—RECEIPTS AND EXPENDITURES

[Millions of dollars]

| | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | Total 1931–1938 |
|---|---|---|---|---|---|---|---|---|---|
| RECEIPTS | | | | | | | | | |
| Internal Revenue: | | | | | | | | | |
| Income tax | 1,860 | 1,057 | 746 | 818 | 1,099 | 1,427 | 2,158 | 2,635 | 11,800 |
| Miscellaneous internal revenue [1] | 570 | 504 | 858 | 1,823 | 2,178 | 2,086 | 2,439 | 3,040 | 13,498 |
| Customs | 377 | 328 | 251 | 313 | 343 | 387 | 486 | 359 | 2,844 |
| Proceeds of Government owned securities, Panama Canal tolls and other miscellaneous receipts [2] | 379 | 100 | 220 | 160 | 173 | 213 | 172 | 174 | 1,591 |
| Total receipts | 3,186 | 1,989 | 2,075 | 3,114 | 3,793 | 4,113 | 5,255 | 6,208 | 29,733 |
| EXPENDITURES | | | | | | | | | |
| Ordinary: | | | | | | | | | |
| Legislative, judicial, and civil establishments | 647 | 756 | 584 | 458 | 562 | 675 | 689 | 712 | 5,083 |
| National defense | 667 | 664 | 633 | 494 | 663 | 880 | 895 | 980 | 5,876 |
| Veterans' pensions and benefits | 943 | 973 | 849 | 554 | 604 | 2,348 | 1,128 | 572 | 7,971 |
| Interest on public debt | 612 | 599 | 689 | 757 | 821 | 749 | 866 | 926 | 6,019 |
| Agricultural adjustment | | | | 289 | 712 | 533 | 527 | 362 | 2,423 |
| Other [3] | 118 | 171 | 96 | 99 | 95 | 124 | 558 | 1,000 | 2,261 |
| Total | 2,987 | 3,163 | 2,851 | 2,651 | 3,457 | 5,309 | 4,663 | 4,552 | 29,633 |
| Relief, direct and part of W. P. A., C. C. C., etc., not in investment budget [4] | | | 340 | 999 | 1,303 | 1,304 | 1,474 | 1,162 | 6,582 |
| Write-offs on loans and investments and amortization of public works [5] | 204 | 220 | 236 | 289 | 356 | 428 | 1,506 | 661 | 2,900 |
| Total operating expenditures | 3,191 | 3,383 | 3,427 | 3,939 | 5,116 | 7,041 | 6,643 | 6,375 | 39,115 |
| Operating deficit or surplus | −5 | −1,394 | −1,352 | −825 | −1,323 | −2,928 | −1,388 | −167 | −9,382 |

[1] Including Social Security Act, taxes upon carriers and employees processing taxes, Railroad Unemployment Insurance Tax.
[2] Repayment of loans deducted and accounted for in investment budget.
[3] Includes Social Security, Railroad Retirement, Government Employees' Retirement, etc.
[4] The difference between the totals shown in footnote [7] of investment budget and amount of work relief allocated in the investment budget.
[5] Sum of write-offs on loans and amortization shown in the investment budget.

*Double budget for the United States, fiscal years 1931–1938*—Continued

INVESTMENT BUDGET

[Millions of dollars]

| | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | Total 1931–1938 |
|---|---|---|---|---|---|---|---|---|---|
| Loans and investments in Government corporations and credit agencies (less repayments) | 259 | 1,062 | 994 | 1,614 | 209 | −121 | −330 | 239 | 3,926 |
| Write-offs | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 144 | [6] 494 |
| Net | 209 | 1,012 | 944 | 1,564 | 159 | −171 | −380 | 95 | 3,432 |
| Public works, self-liquidating: | | | | | | | | | |
| Tennessee Valley (power) | | | | 4 | 14 | 20 | 17 | 17 | 72 |
| Reclamation projects | 14 | 26 | 25 | 25 | 41 | 50 | 52 | 65 | 298 |
| Total self-liquidating | 14 | 26 | 25 | 29 | 55 | 70 | 69 | 82 | 370 |
| Public works, nonrevenue (excluding work relief): | | | | | | | | | |
| Public highways | 174 | 210 | 178 | 268 | 317 | 244 | 351 | 237 | 1,979 |
| Tennessee Valley (navigation, flood control, etc.) | | | | 7 | 22 | 29 | 25 | 25 | 108 |
| Rivers and harbors | 51 | 55 | 51 | 76 | 133 | 150 | 148 | 98 | 762 |
| Flood control | 35 | 28 | 34 | 41 | 31 | 36 | 45 | 61 | 311 |
| Public buildings | 68 | 86 | 106 | 79 | 58 | 68 | 76 | 77 | 618 |
| Grants to public bodies | | | | 19 | 49 | 234 | 273 | 190 | 765 |
| Other | 79 | 94 | 78 | 106 | 101 | 83 | 115 | 110 | 766 |
| Total, nonrevenue (excluding work relief) | 407 | 473 | 447 | 596 | 711 | 844 | 1,033 | 798 | 5,309 |
| Two-fifths of work relief (C. W. A., F. E. R. A., and W. P. A.) [7] | | | 13 | 605 | 733 | 704 | 763 | 590 | 3,408 |
| Three-quarters of Civilian Conservation Corps | | | 7 | 249 | 327 | 364 | 290 | 244 | 1,481 |
| Non-revenue from work relief | | | 20 | 854 | 1,060 | 1,068 | 1,053 | 834 | 4,889 |
| Total non-revenue public works, including part of work relief | 407 | 473 | 467 | 1,450 | 1,771 | 1,912 | 2,086 | 1,632 | 10,198 |
| Amortization [8] | 154 | 170 | 186 | 239 | 306 | 378 | 456 | 517 | 2,406 |
| Net | 253 | 303 | 281 | 1,211 | 1,465 | 1,534 | 1,630 | 1,115 | 7,792 |
| Total Public Works | 267 | 329 | 306 | 1,240 | 1,520 | 1,604 | 1,699 | 1,197 | 8,162 |
| Net capital investment | 476 | 1,341 | 1,250 | 2,804 | 1,679 | 1,453 | 1,319 | 1,292 | 11,594 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Operating deficit | 5 | 1,394 | 1,352 | 825 | 1,323 | 2,928 | 1,388 | 167 | 9,382 |
| New capital investment | 476 | 1,341 | 1,250 | 2,804 | 1,679 | 1,433 | 1,319 | 1,292 | 11,594 |
| Net chang in general fund balance, etc.[9] | 135 | −49 | 450 | 885 | −1,354 | 716 | −60 | −719 | 4 |
| Increases in gross public debt | 616 | 2,686 | 3,052 | 4,514 | 1,648 | 4,844 | 2,880 | 740 | 20,980 |
| Gross debt | 16,801 | 19,487 | 22,539 | 27,053 | 28,701 | 33,545 | 36,425 | 37,165 | ---------- |
| Contingent liabilities on account of governmental agencies | ([10]) | ([10]) | ([10]) | 691 | 4,151 | 4,750 | 4,695 | 4,878 | ---------- |

Source: Based on *Daily Treasury Statement* as revised on July 1, 1938, and the *Annual Report of the Secretary of the Treasury*, June 30, 1938.

[6] Assuming a write-down for the period of $400,000,000, plus $169,000,000 representing an estimated impairment of capital that the Commodity Credit Corporation will have suffered by the end of the fiscal year 1939, and allocating $94,000,000 of this to the fiscal year 1938.

[7] The total expenditures of these agencies by fiscal years (millions of dollars) are as follows:

| | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 |
|---|---|---|---|---|---|---|
| F. E. R. A. | 33 | 707 | 1,821 | 496 | 12 | 4 |
| C. W. A. | ---------- | 805 | 11 | ---------- | ---------- | ---------- |
| W. P. A. | ---------- | ---------- | ---------- | 1,264 | 1,896 | 1,472 |
| Total | 33 | 1,512 | 1,832 | 1,760 | 1,908 | 1,476 |

[8] Computed by assuming an average 25-year life constant rate, using figures supplied by the Treasury Department on value of public works from 1906 to 1930.

[9] Includes net change in General Fund Balance, excess of receipts over payments in trust accounts, and net increment in gold.

[10] Not available.

EXHIBIT No. 626

# HOLDERS OF THE MORTGAGES ON AMERICAN HOMES

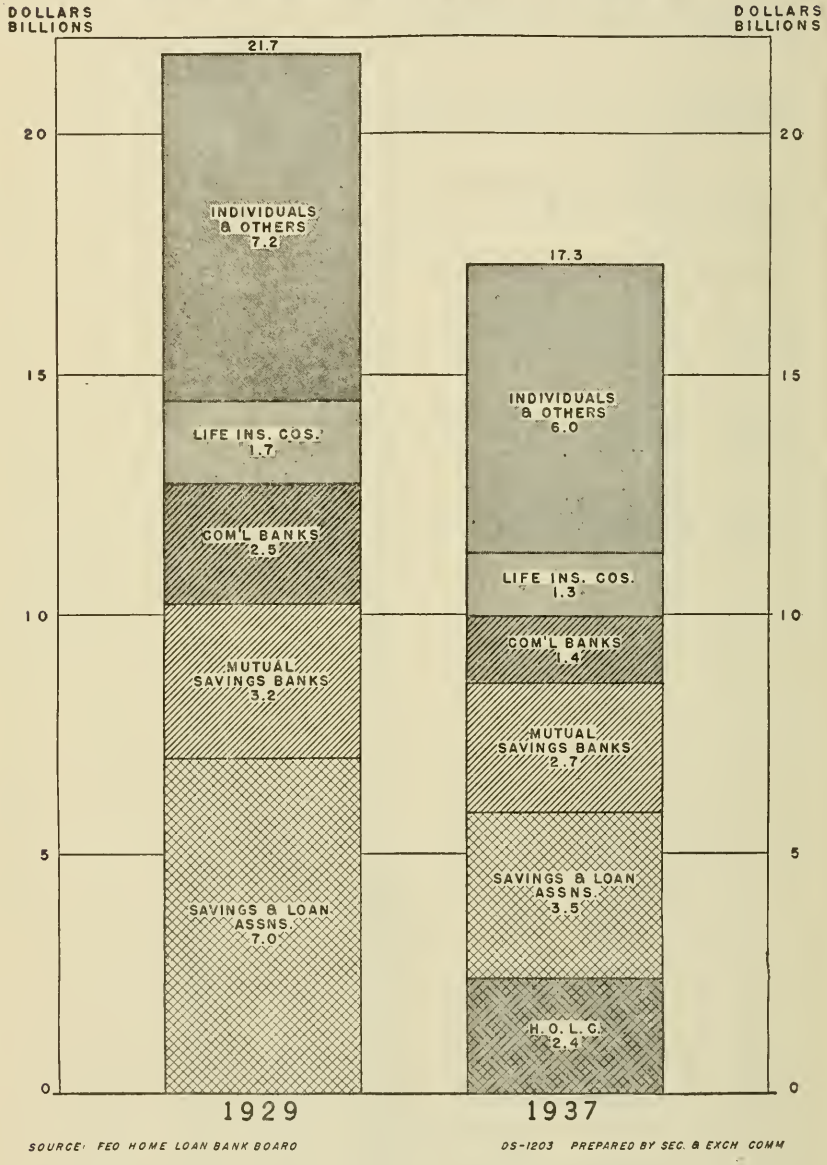
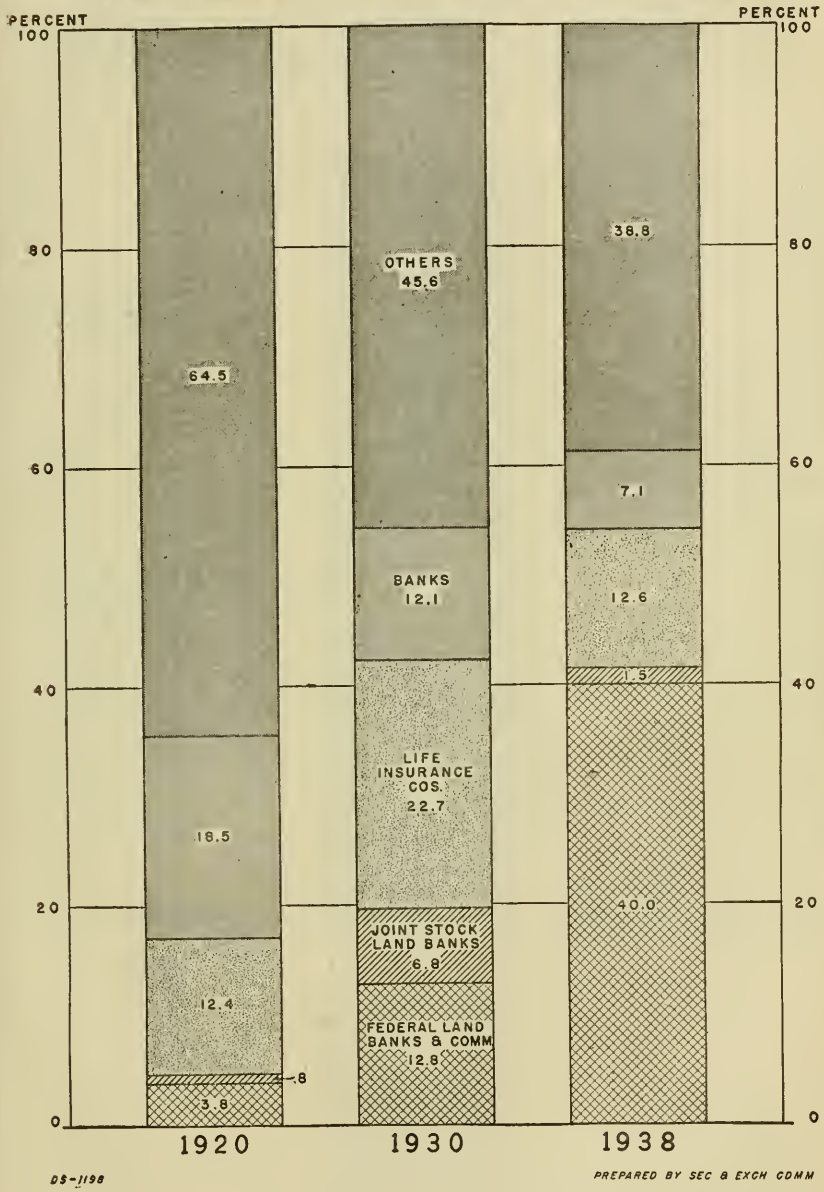


EXHIBIT No. 627

# HOLDERS OF THE FARM MORTGAGE DEBT



## Exhibit No. 627

[Chart based on following statistical data appears on p. 4095]

*Principal classes of holders of the farm mortgage debt 1920–1938*

[Amounts in millions]

| Year | Life insurance companies | Federal land bank & F. L. B. commissioner | Joint stock land banks | Three State agencies | Commercial banks | Individuals and others | Total |
|---|---|---|---|---|---|---|---|
| 1920 | 971 | 294 | 60 | ---- | [1] 1,460 | 5,072 | 7,858 |
| 1921 | 1,201 | 350 | 78 | ---- | 1,440 | ---- | [1] 8,100 |
| 1922 | 1,427 | 433 | 85 | ---- | 1,430 | ---- | [1] 8,400 |
| 1923 | 1,550 | 639 | 219 | ---- | 1,410 | ---- | 8,900 |
| 1924 | 1,785 | 800 | 393 | ---- | 1,380 | ---- | [1] 9,100 |
| 1925 | 1,935 | 928 | 446 | ---- | 1,330 | ---- | 9,361 |
| 1926 | 2,022 | 1,006 | 546 | ---- | 1,280 | ---- | [1] 9,390 |
| 1927 | 2,115 | 1,039 | 632 | ---- | 1,230 | ---- | [1] 9,420 |
| 1928 | 2,164 | 1,145 | 670 | ---- | 1,180 | 4,469 | 9,460 |
| 1929 | 2,130 | 1,183 | 657 | ---- | 1,150 | [1] 4,200 | [1] 9,340 |
| 1930 | 2,100 | 1,186 | 626 | 93 | 1,120 | 4,258 | 9,241 |
| 1931 | 2,052 | 1,176 | 591 | 93 | 1,030 | [1] 4,100 | 9,100 |
| 1932 | 1,997 | 1,152 | 537 | 93 | 1,040 | [1] 4,000 | [1] 8,800 |
| 1933 | 1,850 | 1,106 | 459 | 84 | 970 | [1] 3,700 | 8,500 |
| 1934 | 1,622 | 1,274 | 392 | 80 | 740 | [1] 4,000 | [1] 8,100 |
| 1935 | 1,284 | 2,502 | 256 | 62 | 580 | 3,067 | 7,770 |
| 1936 | 1,055 | 2,854 | 176 | 48 | 566 | 2,879 | 7,500 |
| 1937 | 936 | 2,889 | 133 | 33 | 488 | 2,776 | 7,255 |
| 1938 | 895 | 2,836 | 104 | 25 | 501 | 2,721 | 7,082 |

PERCENTAGE OF TOTAL FARM MORTGAGE DEBT HELD BY MAJOR INSTITUTIONAL HOLDERS, 1920-1938

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1920 | 12.4 | 3.8 | 0.8 | ---- | 18.5 | 64.5 | ---- |
| 1921 | 14.8 | 4.3 | 0.9 | ---- | 17.7 | 62.3 | ---- |
| 1922 | 17.0 | 5.2 | 1.0 | ---- | 17.0 | 59.8 | ---- |
| 1923 | 17.4 | 7.2 | 2.5 | ---- | 15.8 | 57.1 | ---- |
| 1924 | 19.6 | 8.8 | 4.3 | ---- | 15.2 | 52.1 | ---- |
| 1925 | 20.7 | 9.9 | 4.8 | ---- | 14.2 | 50.4 | ---- |
| 1926 | 21.5 | 10.7 | 5.8 | ---- | 13.6 | 48.4 | ---- |
| 1927 | 22.5 | 11.3 | 6.7 | ---- | 13.1 | 46.4 | ---- |
| 1928 | 22.9 | 12.1 | 7.1 | ---- | 12.5 | 45.4 | ---- |
| 1929 | 22.8 | 12.7 | 7.0 | ---- | 12.3 | 45.2 | ---- |
| 1930 | 22.7 | 12.8 | 6.8 | ---- | 12.1 | 45.6 | ---- |
| 1931 | 22.5 | 12.9 | 6.5 | ---- | 12.0 | 46.1 | ---- |
| 1932 | 22.7 | 13.1 | 6.1 | ---- | 11.8 | 46.3 | ---- |
| 1933 | 22.8 | 13.0 | 5.4 | ---- | 11.4 | 48.4 | ---- |
| 1934 | 20.0 | 15.7 | 4.8 | ---- | 9.1 | 50.4 | ---- |
| 1935 | 16.5 | 32.2 | 3.3 | ---- | 7.5 | 40.5 | ---- |
| 1936 | 14.1 | 38.1 | 2.3 | ---- | 7.5 | 38.0 | ---- |
| 1937 | 12.9 | 39.8 | 1.8 | ---- | 6.7 | 38.8 | ---- |
| 1938 | 12.6 | 40.0 | 1.5 | ---- | 7.1 | 38.8 | ---- |

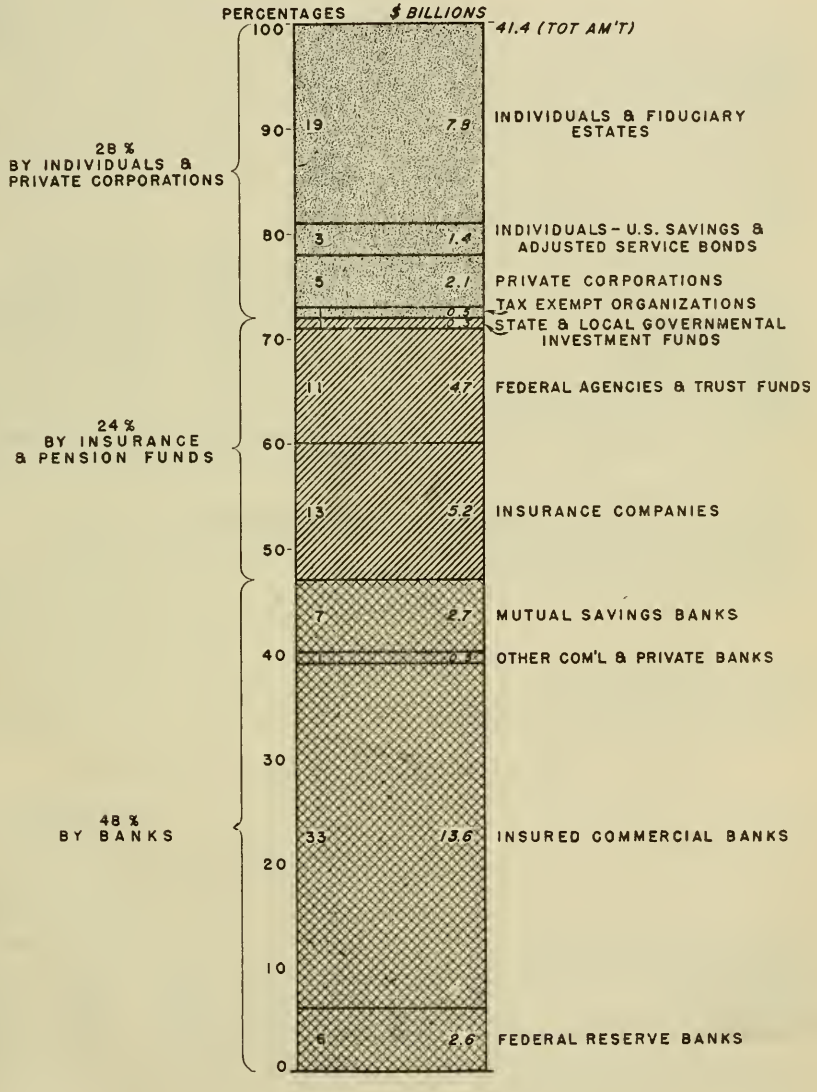
[1] Data have been estimated on the basis of straight line interpolation.

Sources: Horton, Long Term Debts in the United States; Agricultural Finance Review, Nov. 1938; Survey of Current Business, Jan. 1939.

EXHIBIT No. 628

# OWNERS OF THE FEDERAL DEBT

## DIRECT & GUARANTEED OBLIGATIONS OF THE U.S. GOVERNMENT - JUNE 30, 1938




SOURCE. BULLETIN OF THE TREASURY DEPT

DS-1197 PREPARED BY SEC & EXCH COMM.

## EXHIBIT No. 628

[Chart based on following statistical data appears on p. 4097]

*Principal classes of holders of direct and guaranteed Government obligations and the estimated amounts of their holdings on June 30, 1938*

[In billions of dollars]

| Holders | Direct obligations | Guaranteed obligations | Total direct and guaranteed obligations | Percent of total outstanding | | |
|---|---|---|---|---|---|---|
| | | | | Direct obligations | Guaranteed obligations | Total direct and guaranteed obligations |
| All insured commercial banks | 11.2 | 2.4 | 13.6 | 31 | 50 | 33 |
| Mutual savings banks | 2.4 | .3 | 2.7 | 7 | 6 | 7 |
| Other commercial and private banks | .5 | (1) | .5 | 1 | (1) | 1 |
| Subtotal—all commercial and savings banks | 14.1 | 2.7 | 16.8 | 39 | 56 | 41 |
| Individuals (including fiduciaries, estates, etc.): | | | | | | |
| U. S. Savings and Adjusted Service Bonds | 1.4 | | 1.4 | 4 | | 3 |
| Other obligations [2] | 6.9 | .9 | 7.8 | 19 | 19 | 19 |
| Subtotal—individuals | 8.3 | .9 | 9.2 | 23 | 19 | 22 |
| Insurance companies | 4.5 | .7 | 5.2 | 12 | 15 | 13 |
| Other corporations | 1.9 | .2 | 2.1 | 5 | 4 | 5 |
| Tax-exempt organizations [3] | .5 | | .5 | 1 | | 1 |
| Federal Reserve banks | 2.6 | | 2.6 | 7 | | 6 |
| Federal agencies and trust funds [4] | 4.4 | .3 | 4.7 | 12 | 6 | 11 |
| State and local Government investment funds | .3 | | .3 | 1 | | 1 |
| Total amount outstanding [3] | 36.6 | 4.8 | 41.4 | 100 | 100 | 100 |

[1] Under $50 millions, and under ½ of 1 percent.
[2] Includes foreign holdings, which are estimated at less than $100 millions.
[3] Other than mutual savings banks and insurance companies exempt from Federal income tax.
[4] Excludes R. F. C. notes held by the Treasury.

Source: Bulletin of the Treasury Department, March 1938.

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## EXHIBIT No. 629

Small Business Study, Sec.
Ernest Jerome Hopkins, Investigator.

*Summary of position of forty Fall River small business concerns*

| | Cash | Inventory | Receivables | Payables | Included in payables | |
|---|---|---|---|---|---|---|
| | | | | | Bank loans | Other loans |
| Miscellaneous Small Manufacturing | $56,263 | $480,000 | $300,000 | $580,000 | $108,000 | $60,299 |
| Food Products (one mf., 3 wholsl., 1 creamery, 1 outlet) | 12,968 | 140,000 | 150,000 | 308,000 | 18,000 | 101,882 |
| Builders Supply | 5,979 | 94,000 | 106,000 | 126,000 | 2,000 | 19,375 |
| Household Supply | 25,127 | 114,000 | 340,000 | 131,000 | 12,900 | 6,150 |
| Retail Men's Clothing: Shoes | 8,125 | 150,000 | 81,000 | 190,000 | 3,700 | 102,356 |
| Services (1 trucking, 1 printing, 2 laundry) | 1,760 | 1,020 | 26,700 | 47,000 | 4,400 | 32,875 |
| Total | 110,222 | 979,020 | 1,003,700 | 1,382,000 | 149,200 | 322,937 |

"Exhibit No. 630" appears in text facing p. 3925

"Exhibit No. 631" appears in text on p. 3928

## Exhibit No. 632

### Tennessee's Industrial Expansion and Its Relation to Economic Independence

By Ford L. Wilkinson, Jr., professor, mechanical engineering, University of Tennessee

Prophecy has its elements of danger. It is too frequently remembered by others and permitted to return to rest uneasily upon the shoulders of the prophet. Yet, in planning for the future, we must attempt to predict that future largely in the light of the past. Should the trend of events, based on past performance, lead toward a possibly dangerous future, we may be justified in having a few jitters and "viewing with alarm."

So it is with the industrial history of the state of Tennessee; and it is believed that, while there is much to be proud of in the industrial growth of our state, there are certain trends that should cause us to become apprehensive of Tennessee's economic future.

It is generally conceded that the entire South is the new industrial frontier. The reports of investment services are plastered with red lettered captions advising industrial investors to look southward, and in spite of this fact, they are actually doing it. In other words, the South is being discovered anew and its industrial opportunities advertised in the money marts of the East. According to a recent issue of *Chemical & Metallurgical Engineering*, investment is new plants in the Southeast in the process industries alone during 1936 amounted to $33,870,000—41% of the total for the whole country.

Chambers of Commerce and civic organizations throughout the South are standing by to reap the harvest that will come with larger pay envelopes and increased industrial activities. We are on the verge of a boom from *outside*, and it may be ominous unless we start at once to analyze our condition and plan for industrial development.

#### Twenty Years of Tennessee's Industries

Let us look at a twenty-year period of the past, from 1909 to 1929. This period has been chosen for the simple reason that accurate data are easily available. While it may not, and undoubtedly does not, portray present-day industrial conditions, it indicates some factors that it is thought must be considered in our plan, *if we have one.*

Table I has been prepared from the 1930 Census with some additions in the way of percentages. Industrial establishments have been classified as to value of products manufactured. Only those establishments producing manufactured products for distribution amounting to over $5,000.00 per year are considered.

#### Growth of Large Industry

The increase in the number of large-scale industries is apparent. When we see that the number of establishments whose product value exceeds $1,000,000 per year have increased by 875% in the past twenty years, we realize that Tennessee's industrial increase is decidedly along the lines of large-scale manufacturing. These industries accounted for less than 0.7% of the total number of industries in 1909 and for nearly 6% in 1929.

The gain in the "value added by manufacturing" in this 20-year period is even more marked. By the phrase "value added by manufacture" is meant the increment created by manufacturing process. It measures the net addition to the value of commodities in existence, and is calculated by deducting the cost of materials, containers, fuels, and purchased electric energy from the value of products. We can therefore say that this value includes fixed charges on the investment, taxes, wages, and profit. For those industries financed within the state, this column would indicate the value to the state from its manufactured products. Where industry is financed outside the state, only that portion including wages and taxes could be considered as added state wealth.

TABLE I.—*Manufacturing establishments classified as to size by value of products*

| Value of products | Number of establishments | | | Wage earners, average for the year | | | Total value of products, $1,000 | | | Total value added by mfg., $1,000 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1929 | 1919 | 1909 | 1929 | 1919 | 1909 | 1929 | 1919 | 1909 | 1929 | 1919 | 1909 |
| Over $5,000 | 2,855 | 3,134 | 2,527 | 128,400 | 93,866 | 68,299 | 730,508 | 552,707 | 175,576 | 315,869 | 209,383 | 73,142 |
| $5,000–$19,999 | 1,201 | 1,411 | 1,352 | 4,004 | 4,427 | 8,675 | 12,077 | 14,711 | 13,380 | 7,030 | 7,969 | 7,335 |
| $20,000–$99,999 | 812 | 969 | 789 | 8,595 | 11,346 | 15,379 | 37,321 | 43,701 | 34,700 | 20,384 | 20,824 | 15,749 |
| $20,000–$49,999 | 515 | | | 4,046 | | | 16,388 | | | 9,665 | | |
| $50,000–$99,999 | 297 | | | 4,549 | | | 20,932 | | | 10,719 | | |
| $100,000–$499,999 | 506 | 508 | 369 | 27,856 | 27,181 | 37,822 | 118,871 | 120,787 | 96,928 | 58,000 | 54,241 | 40,742 |
| $100,000–$249,999 | 319 | | | 11,934 | | | 51,027 | | | 26,097 | | |
| $250,000–$499,999 | 187 | | | 15,922 | | | 67,844 | | | 31,903 | | |
| $500,000–$999,999 | 170 | 132 | | 23,137 | 17,791 | | 118,269 | 92,035 | | 53,045 | 38,453 | |
| $1,000,000+ | 166 | 114 | 17 | 64,808 | 33,121 | 6,423 | 443,968 | 281,470 | 30,567 | 184,437 | 87,893 | 9,305 |
| $1,000,000–$2,499,999 | 116 | | | 26,623 | | | 172,819 | | | 72,545 | | |
| $2,500,000–$4,999,999 | 35 | | | 21,519 | | | 122,755 | | | 48,488 | | |
| $5,000,000+ | 15 | | | 16,666 | | | 148,393 | | | 63,403 | | |

PERCENT INCREASE OR DECREASE

| Value of product | 1909–1919 | 1919–1929 | 1909–1929 | 1909–1919 | 1919–1929 | 1909–1929 | 1909–1919 | 1919–1929 | 1909–1929 | 1909–1919 | 1919–1929 | 1909–1929 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Over $5,000 | 23.80 | −8.90 | 13.00 | 37.50 | 47.50 | 88.00 | 215.00 | 32.20 | 315.00 | 186.00 | 55.50 | 335.00 |
| $5,000–$20,000 | 4.35 | −14.50 | −11.50 | −48.80 | −9.55 | −53.80 | 10.00 | −14.05 | −10.80 | 8.60 | −11.65 | −4.45 |
| $20,000–$100,000 | 22.80 | −16.50 | 2.92 | −26.30 | −24.20 | −44.00 | 26.00 | −14.60 | 7.55 | 32.20 | −2.12 | 28.40 |
| $100,000–$1,000,000 | 73.50 | 5.62 | 83.20 | 45.40 | −7.25 | 35.00 | 54.00 | 11.40 | 134.50 | 127.00 | 19.80 | 168.00 |
| Over $1,000,000 | 570.00 | 45.60 | 875.00 | 407.00 | 95.50 | 910.00 | 820.00 | 57.70 | 1,350.00 | 845.00 | 110.00 | 1,880.00 |

Let us look at this all important column in the light of the increases over the past 20 years. The "value added" has increased in the past twenty years for all industry by 335%, but for those industries whose output is valued at over $1,000,000 annually *the increase has been 1,880%*.

This latter large industrial group, comprising less than 6% of the total in 1929, accounted for 58.5% of the value added by manufacturing in that year, while in 1909 about 12% of the total, and in 1919, approximately 40%. The trend is upward. Tennessee is becoming an industrial state more and more, dependent on large manufactories for its income.

This has had a very healthy effect on the income of its wage-earning class, as is indicated by the census figures for the thirty-year period from 1899 to 1929. The annual average industrial wage has been reported for Tennessee as follows:

| | |
|---|---|
| 1899 | $324.00 per year |
| 1909 | $383.00 " " |
| 1919 | $855.00 " " |
| 1929 | $900.00 " " |

Therefore we can say that this trend is good. With an increase in the "value added by manufacture," the state has reaped untold benefits in increased wages and taxes. Perhaps that is sufficient reason to consider the history of Tennessee's industrial growth as most encouraging. But if we look at some more statistical data, perhaps we may have misgivings, especially those of us that would like to see our state sharing more fully in the rewards of industrial development of its resources.

### OWNERSHIP OF TENNESSEE'S LEADING INDUSTRIES

Table II has been constructed to indicate the changing picture of the ten leading industries in 1919, 1929, and 1933. The percentage of the industry owned outside the state has been estimated, and these figures are subject to error. They are based on the known manufacturing establishments in the field and, in some cases, checked against records of output.

It will be noted that in 1919 only 38.8% of the "value added" by these *ten* industries was produced by absentee ownership. In 1929 this percentage had increased to 64.2 and in 1933 to 70.5. In 1919 then the 38.8% accounted for 19.3% of the total value added by manufacture for that year, while in 1929 outside industry accounted for 28.4% and in 1933 for 46.05%.

These are not good years for comparative purposes, as two of them, 1919 and 1929, are peak production years and 1933 is a minimum production year; yet it is believed that some conclusions concerning Tennessee's industrial tendencies can well be drawn from these data, if we consider the character of the industrial efforts represented by the ten leading industries for these three years.

In 1929, 28.4% of the profits from the ten leading industries left the state. It may have been more or it may have been less for all the industries in Tennessee. This figure for 1929 may not be alarming in itself, but the trend as indicated by the 1929 and 1933 figures shows an unhealthy condition. Probably if the data for 1936 were available, the increase in this direction would be greater.

TABLE II.—*Ten leading industries, 1919–1929–1933*

| Rank | 1919 | | | | 1929 | | | | 1933 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Industry | Value added by mfg. $1,000 | Est. absentee ownership | | Industry | Value added by mfg. $1,000 | Est. absentee ownership | | Industry | Value added by mfg. $1,000 | Est. absentee ownership | |
| | | | % | $1,000 | | | % | $1,000 | | | % | $1,000 |
| 1 | Lumber & Timber Products | 24,333 | 20 | 4,866 | Hosiery & Knit Goods | 21,718 | 50 | 10,859 | Rayon & Allied Products | 19,100 | 100 | 19,100 |
| 2 | Cars & Gen. Shop Const. (steam ry.). | 16,159 | 80 | 12,920 | Rayon & Allied Products | 19,495 | 100 | 19,495 | Hosiery & Knit Goods | 17,531 | 50 | 8,765 |
| 3 | Hosiery & Knit Goods | 12,607 | 50 | 6,303 | Lumber & Timber Products | 19,176 | 30 | 5,752 | Printing & Publishing | 8,451 | 60 | 5,075 |
| 4 | F'dry. & Mach. Shop Products. | 10,913 | 50 | 5,451 | Printing & Publishing | 18,568 | 60 | 11,150 | Chemicals | 7,702 | 75 | 6,780 |
| 5 | Cotton Goods | 8,165 | 50 | 4,082 | Cars & Gen. Shop Const. (steam ry.). | 14,832 | 80 | 11,850 | Cars & Gen. Shop Const. (steam ry.). | 6,315 | 80 | 5,050 |
| 6 | Oil & Cake (cotton seed) | 7,619 | 30 | 2,280 | Motor Vehicles (bodies & parts). | 10,269 | 100 | 10,269 | Cotton Goods | 6,066 | 75 | 4,550 |
| 7 | Printing & Publishing | 6,927 | 40 | 2,770 | F'dry & Mach. Shop Products. | 9,764 | 50 | 4,882 | Lumber & Timber Products | 4,129 | 30 | 1,240 |
| 8 | Flour & Grist Mill Products | 6,736 | 10 | 673 | Cotton Goods | 9,354 | 75 | 7,020 | Tobacco (chew, smoke & snuff). | 4,120 | 80 | 3,290 |
| 9 | Food Preparation | 5,639 | 10 | 564 | Tobacco (chew, smoke, & snuff). | 8,461 | 80 | 6,770 | Bread & Bakery Products | 4,030 | 10 | 403 |
| 10 | Furniture | 5,025 | 10 | 503 | Planing Mill Products | 8,248 | 10 | 825 | Wooden Goods (turning, wallboard, etc.). | 3,688 | 75 | 2,804 |
| | Total | 104,123 | 38.8 | 40,418 | | 139,885 | 64.2 | 88,872 | | 81,123 | 70.5 | 57,057 |
| | % State's Total | 49.8 | | 19.3 | | 44.3 | | 28.4 | | 65.2 | | 46.05 |

### CHANGING PICTURE OF INDUSTRY

The change in the character of the ten leading industries is of extreme interest. Some new leaders were developed in 1929 and again in 1933. Rayon made its first appearance in this group in 1929 and assumed second place in all of the state's industrial endeavors. It had climbed to first place in 1933, and Rayon's Handbook shows that two years later, in 1935, Tennessee led the country in rayon output.

Another industry that has undergone a complete change is number six in the 1929 list of ten leading industries, classified as "Motor Vehicles, Bodies and Parts." This has been listed as 100% absentee ownership, for in that year practically all of the activities in this field were confined to branch factories of large body manufacturers. Tennessee's plants fabricated the wooden structural parts and shipped them to body assembly plants elsewhere.

This was a $100,000,000 industry in 1929, and four years later, in 1933, the U. S. Biennial Census of Manufacture gives to Tennessee only $60.000 value added by manufacturing in this one-time state leader. This is due to the changing picture of industrial progress, about which more will be said later.

It is not the object of this paper to insist that the state of Tennessee close its doors to financial investors from without. However, it is the author's belief that steps should be taken immediately by those concerned with the state's development to make it possible to maintain an even balance between local and absentee ownership. It is the author's sincere conviction that unless something is done immediately, the state of Tennessee will rapidly become a dependent state.

What does such a condition mean? To illustrate with one concrete example, we can take the case of the "Motor Vehicle, Bodies and Parts" group, which in 1929 was a $10,000,000 industry.

### EFFECT OF CHANGE ON ONE LARGE PLANT

In 1928 one of the large body companies established a branch plant in Knoxville. By early 1929 this plant was employing approximately 1,500 wage earners. At the average annual wage of $900.00 for industrial workers in 1929, its pay roll is estimated at $1,350,000. The ratio of wages to value added by manufacture in that year was approximately 0.41. Assuming that the average ratio held for this industrial plant, the value added by manufacture in this plant alone amounted to about $3,300,000 annually. The taxes and wages were of great benefit to the city of Knoxville and to the state of Tennessee, which brightened the hearts of the Chamber of Commerce, the city fathers, and the local merchants.

But four years later, in 1933, the picture changed. The automobile-body industry changed from wooden to steel bodies overnight. With little or no warning, the Knoxville plant closed its doors and liquidated, leaving a $1,350,000 hole in Knoxville's pay envelope alone.

The reason for this liquidation is obvious. The parent company was no longer interested in wooden parts for bodies. Progress in the art demanded an entirely different process of manufacture and a different raw material. Its business was in automobile bodies and not wood products. While the business had not changed, the materials of manufacture had altered. As the location in Knoxville was not suitable for fabricating sheet metal, the Knoxville plant was sacrificed.

Suppose that this once active establishment had been financed with local capital, or had been primarily interested in wood products rather than in parts for automobile bodies. While its output in the heyday of wooden bodies might have been wholly or largely utilized by the body manufacturers, it would undoubtedly have been more interested in the fabrication of wood products than in any specific process. We can imagine its management watching alertly the trends in motor vehicles. When the first successful steel body appeared, wide-awake local management would have had ready a new product for some other market.

Management's primary interest would have been in keeping the plant running profitably, and its development or product research would have been directed toward utilization of wood products and not toward the field of cheaper and better automobile bodies fabricated out of any material except wood. We can, therefore, imagine this plant, instead of liquidating, continuing its profitable existence and enriching its environment.

While a comparison between 1929 and 1933 conditions may be questionable, because of the economic conditions that prevailed in those two years, another glance at the ten leading industries suggests a greater change toward absentee ownership of Tennessee's industries. Two new industries enter the field in 1933, "Chemicals" and "Wooden Goods." These are largely new process industries based on industrial research and kept alive by product development. These have

each been classified as 75% owned outside the state. They take the place in rank with two industries that are estimated as more predominately "home-owned," "Foundry and Machine Products" and "Planing Mill Products."

Now Tennessee has unquestionably prospered due to the investment of outside capital in its industrial future. Many of these larger industries are mass-production industries necessitating vast sums of money in capital investment. It is gratifying that the state has become the rayon center of the country. It is gratifying that the process industries are looking southward. They are progressive and wide awake. There is little danger of this class of industry shifting its locale without making a struggle to continue in its established factories. It is too much to expect that the capital invested in such enterprises be local, and they are rightly welcome.

### DANGER FROM AN UNBALANCE

The danger, in the author's opinion, lies not in the fact that outside capital is invested in Tennessee's industry, but that there has been such a small amount of development within the state itself. The fact that in 1933, 46% of the profits of industry went outside the state is indeed alarming. There has been much activity in some of these industries within the past three years, and it is believed that this percentage is even higher today than in 1933.

A condition of this character increases the financial dependence of the state. Southern states are fast acquiring the undesirable designation of "pauper" states. This is accentuated by the continued request for preference in competitive enterprises. It is paradoxical to think of the one section of the country more generously supplied with nature's treasures than any other, living from the drippings of another's table. Yet that is likely to be even more pronounced unless something is done to even the economic balance. To believe that it will be accomplished through the continued benevolence of a generous national government or through the philanthropy of the nation's financial capitals, is absurd.

### THE PRICE OF INDUSTRIAL INERTNESS

How did this condition come about? We may trace it partially to the political and economical ascendancy of other sections gained almost three-quarters of a century ago. There is no question that the south existed for a generation under the shadow of the "Tragic Era." Fifty years of inequality in freight rates, poor transportation facilities, and a lack of ready money for investment in its natural resources have all contributed to existing conditions.

But we must be fair in our diagnosis, and admit that, to a great extent, Tennessee and other southern states have been industrially inert. Most large industries have had small beginnings. They have grown powerful through alertness in finance and industrial research. The power gained through increase in size and development of manufacturing technique has made it possible to stifle competition and has resulted in conditions that are indicated by the tables presented.

The handicaps in growing faced by the small industrial enterprises of the South have been insurmountable. This has been true largely because of the lack of technical assistance in their make-up and to lack of research opportunities from local groups. Manufacturing processes have advanced little in the typically local enterprises. They have been unable to meet competition from outside due to the high cost of manufacturing and to the disadvantage at which they are placed by other dominating sections of the country.

Inasmuch as outside capital can establish plants in the South and compete with other areas in spite of the latter disadvantages, it would seem as if we must attribute a large percentage of the lack of growth among the smaller industries to Industrial Inertness, or satisfaction with the status quo.

To the author's mind, the loss of the state's economic independence is too big a price to pay for this lack of alertness.

### A SUGGESTED SOLUTION

To maintain a balance between absentee and local distribution of industrial profits, there must be a build-up of the smaller and locally owned industries. The 1933 biennial census lists thirty-four classes of manufacturing, exclusive of service industries, as contributing materially to the industrial picture of the state. A glance at the list by one familiar with the state's industrial make-up, will disclose that about 50% of these industries are locally owned. The value added by manufacturing from these smaller industries amounts to less than 20% of the total of

the state's income from industrial enterprises. While there is no definite criterion available for determining what a proper balance should be, certainly the condition if allowed to continue will be dangerous.

The author believes that a build-up in the smaller industries, aside from those of service character, is important. Pace must be kept with the larger groups predominately owned outside the state. It can be done through intensive industrial development in two general ways. *First* by state supported industrial research and *second* by contractual research projects in the state University.

### STATE SUPPORTED INDUSTRIAL RESEARCH

The last legislature established a State Planning Commission. Although its life has been short, much constructive work has been done by this organization. It has made suggestions, based on fact finding research, that the present legislature has accepted, and in several cases placed into operation. These researches, however, have been largely applied to administrative and social problems. Perhaps it is best that work should start in these fields. The expense has been partially borne by Federal aid because the fields in which they have conducted research fall into those in which the Federal Administration is largely interested.

This Planning Commission, with greater State aid, could become a research body for the state at large.

The state's natural resources are fairly well known qualitatively but not quantitatively. A recent research project at the University of Tennessee is directed toward the reduction of a certain valuable metal from a relatively low-grade ore. Indications are that with the process as developed, it may be economical to develop this ore if there is a sufficient quantity of it available. The State Geological Survey indicates that this ore exists in certain definite localities, and describes its quality. Yet no exploration of a quantitative character has been made. Therefore, although the research in this field is interesting, its economic value to the State of Tennessee is not at all assured. One of the functions of the State Planning Commission might well be toward a quantitative exploration of the state's natural resources.

Tied in with a survey of this character there should be a comprehensive and continuing market survey; not confined to the possible use distribution within a given area, but covering the possible uses for materials wrested from the state's resources.

For illustration: If the resource of particular interest is manganese, such a marketing or "use survey" should include the possible uses of this metal, the imports into the United States, the amount produced elsewhere, and the price it must command in order to be produced from the state's supply.

Such research is a state function, and the returns on the money invested would be well worth the cost. Much of this state-supported research can be carried on in the University of Tennessee with funds supplied by the Planning Commission. In this way no duplication of agencies would exist.

The old handicap of freight structure is being studied by our Planning Commission at the present time, and recent newspaper reports indicate that for the first time in the history of the Interstate Commerce Commission, the entire Southeast is banding together to show reason why adjustments, wiping out this unnatural handicap, should be made. It is understood that Tennessee's State Planning Commission is taking an active part in this endeavor.

### AN INDUSTRIAL RESEARCH SERVICE IN THE STATE UNIVERSITY

Mr. W. Harry Vaughan, Director of the State Engineering Experiment Station, Georgia School of Technology, in a recent address [1] stated: "If we see the picture clearly in the dim light of our present superficial knowledge; human and industrial progress through the medium of research, should have in view two objectives: (1) the fostering and development of new industry, and (2) the evolution and development of industry already in place."

The development of the lower output group, predominately locally owned, must be accomplished through these two processes, which presupposes the establishment of research services for the smaller investors in the state's industry. Naturally they cannot carry in their smaller businesses the large overhead that goes hand in hand with industrial research. Commercial establishments offering research services in a wide variety of endeavors do not exist in the state nor in the Southeast.

[1] "Engineering Research and The Development of Natural Resources" A. S. M. E. Textile Division Regional Meeting, Greenville. S. C., April 7, 1937.

However, in the state's educational system can be found the nucleus of just such services as will be needed. Here can be developed all the natural and applied scientific researchers needed for the "fostering and development of new industry" and for "the evolution and development of industry already in place."

The first process then may well be considered a function of the state, operating through its already well-organized Planning Commission. This commission may foster new process research in the laboratories of the state university under the guidance of its Engineering Experiment Station. It may be considered undue paternalism to insist that the results of such research be made public property for exploitation, but controlled licensing either by the Planning Commission or by the Engineering Experiment Station of the University is, in the opinion of many, quite feasible. Proceeds from licensing will eventually be expected to bring returns in sufficient quantity to carry the cost of future researches.

The Engineering Experiment Station of the University is already organized to carry on contractual work for established industry. It can make contracts to conduct industrial research, for which the client industry pays all costs plus a fee, the fee to be gauged by the extent of participation desired in any patentable processes developed.

CONCLUSION

The development of Tennessee as an industrial state is certain. There can be no doubt that the increase in its output will continue at a rate greater than in the past. The problem before those in charge of its density should be the control of this great development that is ahead. Shall we permit the unbalance that exists today between absentee ownership and local distribution of profits to increase, or shall we build up the latter at a rate that will keep pace with the former?

If we are concerned with this problem and believe in its dangers, an earnest endeavor must be made to stimualte the two processes of development among the smaller industries; new industries based on new products from our abundant resources, and assistance to those already established in meeting the ever changing picture of industrial progress.

Again quoting Mr. Vaughan "Solutions for many of our economic problems, the development of many of our human resources, the improvement of sociological conditions, and the propagation of education and training will largely come through our research organizations, and particularly, in the south, from such as may have at least a *nucleus* of *state support* and stability and *electrons* of *private endowments.*"

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Exhibit No. 633

TENNESSEE VALLEY AUTHORITY

Industries in Which the South is Deficient

(Agricultural Industries Division, Knoxville, Tennessee, November 1, 1935)

The South contains about 20 percent of the national population, and 11 percent of its purchasing power as measured by retail sales, incomes, etc. A comparison of these percentages above with those in the right-hand column below will give an approximate idea of the possible room for industrial growth in the direction of supplying Southern needs where desirable.

The percentages shown are based on ratio of value of product. In those instances where the U. S. Census of Manufacturers groups Southern and other states together, the ratios are based on estimates.

The "South," for the purpose of these statistics, comprises the following ten states which touch on or influence the Tennessee Valley: Tennessee, Alabama, Georgia, Florida, North Carolina, South Carolina, Virginia, Kentucky, Mississippi, Louisiana.

| Products | United States Total Manufacturing Production, 1929—U. S. Census Data | | South's approximate percentage of U. S. value of products, 1929 |
|---|---|---|---|
| | Wage Earners | Value of Products | |
| Cereal Preparations (Breakfast Foods, Prepared Flours, Coffee substitutes, etc.) | 6,400 | $175,000,000 | 8 |
| Confectionery | 63,000 | 393,000,000 | 8 |
| Crackers & Biscuits | 33,000 | 274,000,000 | 4 |
| Corn Sirups, Sugars, Oils, Starches, Cake & Meal | 6,700 | 165,000,000 | 0 |
| Cheese | 3,400 | 110,000,000 | 2 |
| Chocolate & Cocoa Products | 6,200 | 119,000,000 | 0.5 |
| Food Preparations not elsewhere classified (Peanut Butter, Malted Milk, Potato Chips, Mince Meat, Blended and Compounded Sirups, etc) | 10,000 | 171,000,000 | 8 |
| Meat Packing | 122,000 | 3,434,000,000 | 2 |
| Poultry Dressing, Killing, and Packing, Wholesale | 7,700 | 130,000,000 | 3 |
| Sausages, Meat Puddings, etc | 5,900 | 108,000,000 | 3 |
| Awnings, Tents, Sails, Canvas Covers | 7,100 | 49,000,000 | 7 |
| Cotton, Small Wares (elastic, woven and braided webbing, woven labels, etc.) | 15,000 | 65,000,000 | 3.5 |
| Linen Goods (fabrics, threads, yarns) | 2,200 | 9,700,000 | 0 |
| Hat & Cap Materials, Men's (Hatters' fur, linings, sweat bands, trimmings, etc.) | 2,500 | 25,000,000 | 0 |
| Hats & Caps (Cloth), Men's | 5,800 | 35,000,000 | 3 |
| Hats, Fur-felt | 16,500 | 102,000,000 | 2 |
| House Furnishings (comfortables, quilts, bedspreads, tablecloths, curtains, draperies, etc.) | 15,700 | 127,000,000 | 4 |
| Knit Outerwear | 28,000 | 147,000,000 | 0.7 |
| Knit Cloth [1] | 8,400 | 72,000,000 | 8.2 |
| Linoleum Carpets & Asphalt-base floor coverings | 7,800 | 89,000,000 | 0 |
| Oilcloth (wall, table, and shelf) | 1,400 | 23,000,000 | 0 |
| Silk & Rayon Manufacturers | 130,000 | 731,000,000 | 6 |
| Millinery | 32,000 | 195,000,000 | 1.4 |
| Clothing (Men's & Boy's), Outer Clothing only | 149,000 | 901,000,000 | 3 |
| Women's Clothing (except corsets, hats, hosiery, shoes, and gloves) | 187,000 | 1,709,000,000 | 0.5 |
| Shirts | 60,000 | 228,000,000 | .5 |
| Worsted Goods | 88,000 | 536,000,000 | 1 |
| Carpets & Rugs (Wool) | 32,000 | 176,000,000 | 2 |
| Corsets, Brassieres, Girdles, etc | 13,600 | 76,000,000 | 0.6 |
| Furniture | 193,000 | 948,000,000 | 13 |
| Wood Lasts for Boots & Shoes | 1,760 | 7,600,000 | 0 |
| Mirror & Picture Frames | 4,400 | 19,000,000 | 1.5 |
| Pulp Goods (Vulcanized, fiber, and bakelite products) | 3,500 | 27,000,000 | 2 |
| Refrigerators & Cabinets (Not Mechanical) | 9,700 | 60,000,000 | 6 |
| Paper & Pulp | 103,000 | *967,000,000* | [2] 5.8 |
| Wrapping Paper | $163,000,000 | | |
| Writing Paper | 113,000,000 | | |
| Paperboard, etc | 227,000,000 | | |
| Book Paper | 168,000,000 | | |
| Tissue Papers | 53,000,000 | | |
| Newsprint Paper | 80,000,000 | | |
| Wood Turned & Shaped (Handles, Toy Parts, Novelties, Woodenware, Ladders, Clothes Pins, Furniture Parts, Etc.) | 18,000 | 69,000,000 | [2] 17 |
| Handles | $16,200,000 | | |
| Woodenware (bowls, dishes, washboards, clothes pins, etc.) | 13,000,000 | | |
| Furniture Turnings & Shapes | 7,000,000 | | |
| Textile Machinery Turnings & Shapes | 6,000,000 | | |
| Ladders & Parts | 5,000,000 | | |
| Toys, Toy Parts & Novelties | 3,000,000 | | |
| Miscellaneous, not specified | *16,000,000* | | |
| Labels & Tags | 4,400 | 28,000,000 | 2.5 |
| Wall Paper | 4,700 | 30,000,000 | 0 |
| Paper Goods, Not elsewhere classified (Waxed, glazed, fancy, coated, book, and toilet papers; paper cups, spoons, dishes, napkins, towels; bottle caps; playing cards; egg-case fillers; stencil papers; soda straws; gummed tape; etc.) | 20,000 | 182,000,000 | 2.1 |
| Printing, Book & Job (Books, booklets, and advertising material, leaflets, pamphlets, stationery, etc.) | 150,000 | 1,006,000,000 | 4.7 |
| Explosives (dynamite, blasting powder, etc.) | 5,600 | 72,000,000 | 5.3 |
| Ammunition, etc. (shells, cartridges, fuses, detonating caps, etc.) | 7,200 | 43,000,000 | 0 |
| Blacking, Stains & Dressings (for shoes, stoves, leathers, auto tops) | 1,600 | 24,000,000 | 1 |
| Cleaning & Polishing Preparations (washing and cleaning compounds, metal polish, floor wax, furniture polish, etc.) | 2,700 | 50,000,000 | 0.5 |
| Essential Oils (Not Synthetic) (Witchhazel, Peppermint, etc.) | 265 | 6,600,000 | 0 |
| Chemicals, Not elsewhere classified (acids, ammonia, sodiums, alums, potassiums, but not explosives, soaps, or fertilizers) | 62,000 | 738,000,000 | 7 |
| Paints & Varnishes | 29,000 | 568,000,000 | 3.3 |
| Soap (and Shaving Cream) | 14,000 | 310,000,000 | 0.1 |
| Lubricating Oils & Greases, Not made in Petroleum Refineries | 2,500 | 69,000,000 | 0.3 |

[1] For wage earners, ratio is 18%.
[2] Separate State Figures Not Available.

| Products | United States Total Manufacturing Production, 1929—U. S. Census Data | | South's approximate percentage of U. S. value of products, 1929 |
|---|---|---|---|
| | Wage Earners | Value of Products | |
| Rubber Goods (shoe heels, hose, belting, and hard rubber goods) | 40,000 | $244,000,000 | 5 |
| Leather | 50,000 | 481,000,000 | 7.5 |
| Boots, Shoes & Slippers | 205,000 | 965,000,000 | 2.5 |
| Boot & Shoe Cut Stock (Soles, uppers, heels, inner soles, for sale to shoe plants) | 9,500 | 133,000,000 | 1 |
| Boot and Shoe Findings (Shoe buckles and laces, wooden heels, clasps, staples, pegs, counters, etc.) | 10,300 | 58,000,000 | 0.3 |
| Leather Goods, not elsewhere classified (Belts, handles, washers, dog collars, etc.) | 6,000 | 35,000,000 | 1 |
| Druggists' Preparations (Pills, Tablets, Ointments, Plasters, and other medicine) | 10,600 | 124,000,000 | 2 |
| Patent Medicines (Medicines, Insecticides, Disinfectants, etc.) | 16,400 | 318,000,000 | 7 |
| Perfumes & Cosmetics (Toothpastes, Lotions, Toilet Powders, etc.) | 13,000 | 193,000,000 | 3.7 |
| Drug Grinding (of herbs, roots, gums, etc.) | 677 | 9,600,000 | 1 |
| Glue & Gelatin (Animal and vegetable glues, and edible and inedible gelatins) | 3,000 | 32,000,000 | 0 |
| Printing Ink | 2,400 | 42,000,000 | 1 |
| Linseed Oil, Cake & Meal | 2,700 | 119,000,000 | 0 |
| Rubber Tires & Inner Tubes | 83,000 | 770,000,000 | 1 |
| Rubber Boots & Shoes | 25,000 | 102,000,000 | 0 |
| Pocketbooks, Card Cases, Ladies' Handbags | 10,400 | 68,000,000 | 1.2 |
| Pottery & Porcelain Ware | 35,000 | 110,000,000 | 1.7 |
| Glass (Bottles, tableware, containers, light bulbs, plate and window glass) | 67,000 | 303,000,000 | 2 |
| Cutlery & Edge Tools (except Silver and Plated Cutlery) | 15,000 | 78,000,000 | 0.1 |
| Hardware, Not elsewhere classified (Builders' Hardware, furniture, and casket hardware, piano, saddlery, truck and vehicle hardware, locks, handles, vacuum bottles, etc.) | 52,000 | 229,000,000 | 0.7 |
| Nails & Spikes (not made in wire or rolling-mill companies) | 2,000 | 12,800,000 | 0 |
| Saws | 4,000 | 22,000,000 | 1.5 |
| Tin Cans & Other Tinware (Cans, pails, boxes, household and cooking utensils made with tin and not stamped ware) | 31,000 | 296,000,000 | 3.7 |
| Tools (Not including Edge or Machine Tools, files, or saws) (Plumber and Turner's Tools, Shovels, hoes, rakes, forks, scoops, stonecutters' tools, wrenches, punches, etc.) | 19,000 | 99,000,000 | 1.7 |
| Plated Ware (Table Ware, Toilet Articles, etc.) | 10,700 | 55,000,000 | 0.7 |
| Gas & Electric Fixtures (Kerosene and gasoline-lighting equipment, reflectors, shades, parts, motor-vehicle lamps) | 23,000 | 144,000,000 | 0.1 |
| Emery Wheels & Other Abrasive & Polishing Appliances | 3,800 | 32,000,000 | 2.7 |
| Statuary, Art Goods | 2,100 | 10,000,000 | 3.6 |
| Fire Arms | 6,800 | 21,000,000 | 0 |
| Structural & Ornamental Iron and Steel (for buildings and bridges, also ornamental iron and steel work, fire escapes, gratings, etc.) | 54,000 | 477,000,000 | 6 |
| Wirework, Not elsewhere classified (Woven-wire fencing, barbed wire, wire rope and cable, screens, baskets, etc.) | 22,000 | 146,000,000 | 1 |
| Aluminum Manufacturers (Sheets and plates, auto and other castings; kitchen and household utensils and appliances) | 21,000 | 153,000,000 | |
| (State figures combined. Difficult to show position of the South. Of 150 establishments in United States, South had four—(Alabama 1, Kentucky 1, Tennessee 2.) | | | |
| Copper, Tin & Sheet Iron Work (Tank bins, culverts, stovepipes, gutters, cornices, spouts, skylights, radiator shields, etc.) | 28,000 | 222,000,000 | 6.4 |
| Stamped Ware, Enameled Ware, Metal Stamping, etc. (Kitchen utensils, household and hospital ware, auto parts, license plates, etc.) | 40,000 | 204,000,000 | 3.4 |
| Harvesting & Haying Machinery | (?) | 106,000,000 | 3 |
| Tractors (Including garden tractors and motor cultivators) | | 227,000,000 | 0.25 |
| Electrical Machinery, Apparatus & Supplies | 328,000 | 2,300,000,000 | 0.5 |
| Radio Apparatus | | $411,000,000 | |
| Insulated Wire & Cable | | 312,000,000 | |
| Motors | | 194,000,000 | |
| Batteries | | 149,000,000 | |
| Domestic Household heating & cooking appliances | | 84,000,000 | |
| Pumps & Pumping Equipment | 23,000 | 164,000,000 | 0.7 |
| Refrigerators (Electrical and Other Mechanical) | 16,800 | 161,000,000 | 0 |
| Textile Machinery & Parts | 27,000 | 122,000,000 | 4 |
| Washing & Ironing Machines, for household use | 8,000 | 82,000,000 | 0 |
| Toys, Games & Playground Equipment | 16,600 | 74,000,000 | 0.5 |
| Motor Vehicles | 226,000 | 3,722,000,000 | 4.6 |
| Motor Vehicle Bodies & Parts | 221,000 | 1,537,000,000 | 1 |
| Nonferrous Metal Alloys & Products, except Aluminum Products (Alloys, plates, sheets, bars, tubing, pipe, castings, bearings, type metal, solder, made from brass, bronze, copper, lead, zinc, and antimony) | 79,000 | 909,000,000 | 1 |
| Zinc Smelting & Refining | 11,600 | 118,000,000 | 0 |
| Foundry & Machine Shop Products, Not elsewhere classified (Castings, Machinery, Industrial boilers, piston rings, tanks, smokestacks, etc.) | 454,000 | 2,791,000,000 | 2.1 |

| Products | United States Total Manufacturing Production, 1929—U. S. Census Data | | South's approximate percentage of U. S. value of products, 1929 |
|---|---|---|---|
| | Wage Earners | Value of Products | |
| Ships & Boat Building (For small boats under five tons, the South made 1.5% of the 14,930 such vessels) | 55,000 | $231,000,000 | 17 |
| Brushes | 7,200 | 45,000,000 | 0.5 |
| Buttons | 9,034 | 29,000,000 | 1 |
| Machinery & Supplies for Creameries, Cheese & Butter Factories, Poultrymen and Apiarists | 5,400 | 42,000,000 | 2 |
| Fancy & Miscellaneous Articles (Composition novelties & Ornaments, Inlaid Veneer work, Art Novelties, Lamp Shades, Celluloid Novelties, Bended Work, Needle and Pin Books, etc.) | 18,700 | 85,000,000 | 1 |
| Roofing & Shingles | 6,000 | 103,000,000 | 6.3 |
| Pipes (Tobacco) (Brier, corncob, clay, meerschaum, and composition) | 1,680 | 5,500,000 | 0 |
| Straw Hats, Men's | 3,380 | 18,000,000 | 0 |
| Mattresses & Bed Springs | 17,000 | 123,000,000 | 9.5 |
| Musical Instruments & Parts | 3,100 | 14,000,000 | 0 |
| Optical Goods | 9,700 | 40,000,000 | 1.3 |
| Pencils | 5,700 | 27,000,000 | 6.2 |
| Phonographs | 14,400 | 96,000,000 | 0 |
| Photographic Apparatus & Materials | 13,000 | 102,000,000 | 0 |
| Sandpaper, Emery Paper, Carborundum, & Other Abrasive Lined Papers | 1,228 | 17,000,000 | 0 |
| Signs & Advertising Novelties (Includes advertising novelties, shop-made signs, highway signs, neon signs, name plates, etc.) | 20,000 | 118,000,000 | 3.2 |
| Soda Water Apparatus (Fountains, tanks, siphons) | 2,700 | 24,000,000 | 2.3 |
| Sporting & Athletic Goods (Except Firearms and Ammunition) | 10,700 | 58,000,000 | 3.4 |
| Stationery Goods (Papeterie, desk pads, calendars, inkstands, school supplies, and stationers' specialties) | 11,000 | 74,000,000 | 6.5 |
| Surgical & Orthopedic Appliances (Bandages, Gauze and Appliances) | 7,900 | 71,000,000 | 3.2 |
| Window Shades & Fixtures | 4,700 | 36,000,000 | 1.7 |

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EXHIBIT No. 634

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## ENGINEERING AND SOCIAL PROGRESS IN THE SOUTH [1]

By JOHN P. FERRIS, Director, Department of Agricultural Industries, Tennessee Valley Authority [2]

This meeting was called to discuss some ways in which engineering can contribute toward progress in the South. The raising of our economic level, with the consequent release of greater energies for social and cultural achievement, is overwhelmingly important to the South and to the Nation. No less is involved than the continued existence of democracy in America, for if democracy cannot solve the problems of its peoples, it will go down before the buffets which it is receiving from all sides. It is time for the engineering profession to render larger services than in the past toward the realization of these great objectives.

It seems certain that the South's future will depend to a very great extent upon the direction which industrial development takes. In this respect, therefore, it is important that the engineering colleges exercise effective leadership, not only by the education of young people, but through productive research and cooperation with both industry and agriculture. In discussing the possible contributions of public agencies for engineering education and technical research, we have as illustrations certain joint projects which these engineering institutions and the Tennessee Valley Authority are carrying out and which promise to be significant for southern industry.

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Before we can attempt to arrive at any conclusions concerning sound programs for the South, we should attempt to agree on some fundamental aims of a democratic society. The history of the American democracy tells of the most intense

[1] This address was presented as part of the Georgia School of Technology program of the 11th Annual Institute of Citizenship held under the joint auspices of Emory University, Agnes Scott College and the Georgia School of Technology, February 1938. Released by Dr. Karl D. Hartzell, Director of the Georgia School of Technology program of the Institute.

[2] Considerable material omitted as actually given. (J. P. F., 2-18-38.)

and sustained effort that has ever been made to achieve freedom for the individual in a social order responsible to the majority of its people; economic opportunity for the individual to earn a self-respecting living; and reasonable personal security. This capitalist democracy has brought us more liberty than most other peoples have, and a general standard of living that no other people has yet equaled.

But we have recently seen that our level of income is very unsatisfactory for a large part of our population and that most of our lives are rather insecure. Other great problems have arisen which we do not yet know how to solve.

There is the problem of unemployment. Ralph D. Flanders, former president of the American Society of Mechanical Engineers, said,[3] "The sullen total of several million of unemployed faces us week after week, month after month, year after year, whatever may be the state of prosperity of the employed."

The brilliant achievements of the last hundred years have drawn too heavily on some irreplaceable resources, and we have seriously impaired the productive power of our fundamental capital—the land.

Topsoil from farm lands equal to the entire area of Pennsylvania has been washed down the rivers. We have been living not only on our income but on our capital.

Finally, we have not seen progress, but retrogression, in perhaps the majority of the rural communities of the nation. A great Georgian, Henry Grady, was one of the first to ask whether some of the gains of the cities were at the expense of their supporting rural territories.

The more energetic and able young people, who could do the best job of farming, are leaving the farms and the rural villages for the cities. Merchants record decreasing sales in many rural areas. Per capita rural purchasing power throughout the country seems recently to have averaged only about half that in industrial cities. The serious effects of low rural income are indicated by deficiencies in what Americans generally regard as essential social services. About a year ago there were only 946 public health officers in America's 2,500 or so rural counties; six out of ten have no public health work.

Paralleling the decline of the inland areas, there has been an increasing geographical concentration of development in some 324 counties, including only about 9% of the nation's area, along the ocean margins and the Great Lakes. These counties had (in 1930) 36% of our population, and accounted (in 1935) for 52% of value added by manufacture, and 48% of the national income. Between 1890 and 1930 their population increased 160%, as against 64% for the interior territory of the Mississippi drainage basin.

Throughout the nation, thoughtful people are searching for solutions to these problems which menace our democracy.

If we are to preserve democracy in America, we must solve two of the fundamental problems of our society:

1. The inherent difficulty of securing a proper utilization of the initiative of the individual and, at the same time, the protection of our heritage of irreplaceable resources.

2. The problem of developing a satisfactory working relationship between our city populations on the one hand, and our rural populations on the other; or, stating it with a somewhat different emphasis, between our commercial and industrial centers on the one hand and the outlying areas supplying raw materials on the other.

When we solve these two *problems* we shall have gone far toward eliminating the conflicts between classes in society which so many people regard as inevitable. Furthermore, when we have agreed on measures necessary to achieve these two fundamental objectives, we may expect that the clamors of those who criticize government because it is becoming too strong, and those who criticize it because it is too weak, will largely subside.

Most of us agree that the great rewards which America has offered to individual initiative in business enterprise constitute one of the principal reasons for our rapid economic development. Two unusually forceful and clear statements of of the case for continued reliance upon individual initiative and competition are those by Ralph E. Flanders, in his book Platform for America, and by Walter S. Gifford, President of the American Telephone and Telegraph Company, in a brief article, Well Being for Every One, which appeared in the January 1938 Survey Graphic.

This view has had the right-of-way in America. We think that the individual should generally be free to engage in economic pursuits as he may see fit. In the early days, we believed that business would be local in character, and that,

[3] Mechanical Engineering, June 1935.

therefore, matters affecting the public generally would be taken care of by the constituted agencies of government—county, state, and federal.

We did not foresee, however, that encouragement of individual enterprise would lead to the formation of great economic empires affecting the individual as a citizen fully as much as government affects him, and so strong that government would find it difficult to make the people's will prevail when conflicts arose. Where there has been lodged in the federal government powers which critics have said are excessive or unnecessary, is it not generally because of the insistence of our people that their government should be strong enough to deal with the great aggregations of economic power on equal terms?

About 25 years ago, the nation, under the leadership of Theodore Roosevelt, for the first time surveyed the havoc it had wrought upon some of its basic resources. The first steps to restore forest lands followed the report of his National Conservation Commission in 1909. It is of interest that political leaders and government agencies undertook the protection of resources only after the exploitation or neglect by individual enterprise threatened the nation's future.

More recently certain industries are beginning to accept responsibility for the protection of future resources. It has been reported that one of the southern lumber companies, for instance, began years ago to replant its forest stands.

Referring to the second fundamental problem, the relationship between our urban and rural populations, it should be noted that the urban population represents roughly the commercial and industrial centers which consume raw materials, while the rural populations represent, roughly, the areas which produce them.

One joint interest of the two groups lies in a satisfactory bargain at the point of exchange. In 1929, our industry obtained 65% of its raw materials from American agriculture, and agriculture sold 50% of its product to industry. An unsatisfactory bargain either way throws our entire economic system out of balance. When, for instance, competition forces the farmer to sell his products at a sacrifice, while price control by industry maintains high prices of the goods the farmer must buy, both groups suffer because the farmer cannot buy in normal volumn.

The consequences of this situation have a profound significance that is frequently missed. Farmers are not only producers and consumers; they are the stewards of the most fundamental of all of our natural resources—the land. Economic distress encourages the farmer to try to cover the deficit in his own living by depleting the soil. It is easy for a manufacturer to see that it is useless to get his income by selling a wing of his factory every year. By so doing, he would be maintaining income at the expense of his capital.

The farmer's capital is the stored productivity of centuries in the soil. The small steps in its destruction, though hardly visible from year to year, likewise represent an attempt to maintain income at the expense of capital. This is not generally understood either by the farmer or businessman.

The urban and rural populations have a joint interest arising from the dependence of urban industry on rural markets. The permanent welfare of industry must be associated with a revival of the markets in our rural areas everywhere. Potentially, in our 43% of rural population resides a large part of the total market for industrial products.

A few industrialists of vision have seen this interdependence of rural and urban populations. About 1926, in his book, Electricity as an Aid to Agriculture, Mr. Guy Tripp, Chairman of the Board of Directors of the Westinghouse Electric and Manufacturing Company, proposed that industry assist in developing rural income as a means of restoring rural markets for industrial production.

In considering this matter of rural and urban relationships, there is every reason to believe that the problem will continue to be acute. The market for farm products is comparatively inelastic. If there is any displacement of industrial employees as a result of technical developments, it is certainly a minor matter compared to its tremendous effect in agriculture during the last two generations. From 1870 to 1930 the proportion of our population which was able to earn a living in agriculture dropped from 180 per 1,000 down to 88 per 1,000. Large numbers of workers no longer needed for agriculture were left in the rural areas. There are many indications that the surplus rural population will increase, because of continuing technical progress in agriculture, and because the birthrate in our rural areas is much higher than in the cities. It appears inevitable that employment in industry and services must continue to increase, relative to employment in agriculture. The question is, *how* and *where*.

You are familiar with the unhappy effects of these pressures on some of our rural counties of the Southeast. In 1935 there were counties in Georgia of

predominantly white population with average spendable incomes per person as low as $58 per year. Such communities naturally press for and receive continued subsidies from state and national treasuries. State subsidies appear chiefly in expenditures for roads and schools. Federal money is distributed through relief, public works and in various other ways. As matters now stand, at least a third of America's rural people would practically drop out of the national economy, were it not for this redistribution of income. Perhaps they could tighten their belts still further and get along without the goods they now buy from the cities. But can the great manufacturing centers get along if they lose these markets?

We can apparently expect no satisfactory solution except on the basis of wealth production adequate to support a reasonable standard of living within every area in which people live. It may be agricultural, industrial or commercial, or a combination, so long as it is really productive.

Unquestionably, the Southeast is the nation's agricultural and industrial frontier. More definitely perhaps than any other part of the country, the Southeast is now examining itself. It is asking why its income is low, why there is so little security. It is asking itself how to provide its people with more security; how to raise incomes in spite of the depletion of many of its resources.

I believe there is one resource in the Southeast present in greater measure than in any other part of the country. A great many respected leaders of mature judgment and few doctrines are absolutely determined that the South shall find the road forward. They are practical people who are thinking realistically of these problems as a personal responsibility; they have vision and they are searching for practical things to do. This, in itself, is a significant resource.

In 1932 the University of Tennessee began a series of conferences on the companionship of agriculture and industry, under the leadership of President Harcourt A. Morgan.

A good balance between industry and agriculture in the Southeast seems to mean that, so far as possible, future industrial development should be diffused rather than concentrated. Fortunately, it is probably not too late for the Southeast to develop a better pattern of industry than the older industrial regions of the Northeast, because the Southeast is still largely rural. This fact accounts partly for our low average income, and yet the situation has its bright side.

The older industrial and commercial regions have the advantage of a higher income, but their future is menaced by excessive concentration. In the early days, industry located on the seacoast and on a few river valleys where there was water power. Water and rail transportation followed the river valleys, bringing in coal and materials and taking out manufactured products. The growth of large scale industry occurred chiefly along these few arteries of transportation.

Mass production created "one crop" industrial areas, as in Detroit. Like "one crop" agricultural areas they suffer worse when depressions come than do communities in which income is derived from several sources, both agricultural and industrial. Furthermore, great concentrations of population have not produced a favorable environment for the industrial worker. He derives little satisfaction from work in congested surroundings, and the general atmosphere is one of restlessness and instability.

Fortunately for the Southeast, much of its industrial development follows a "network" pattern, having taken place since the hard-surfaced road and electric power have become available in hundreds of small communities. Industrial communities such as Kingsport, Tennessee, and many others indicate that these factors have already had an influence. Further industrial development of the Southeast is inevitable, and the past justifies the hope that it may bring employment at many places which are within reach of the surplus rural population.

In considering the relation of engineering to social progress in the South, our point of departure was to examine two fundamental problems of our democracy: (1) How can the southern engineer direct his efforts so as to help preserve the principle of individual initiative, and at the same time assist in the better management of irreplaceable resources? (2) How can the southern engineer help bring about a better balance between industry and agriculture?

The world is increasingly geared to technology. America's magnificent productive system would not exist except for the scientist, the engineer, and the consumer. Surely the engineer has as much to contribute to the coming phase of America's development as he contributed to the last phase.

The subject originally assigned for this discussion was "Technological Development and the TVA," hence it seems fitting to refer, by way of illustration, to some of the specific engineering developments which the Land Grant Colleges of this region and the TVA are carrying out jointly.

These projects are directly related to the basic problem of strengthening the rural economy. It is the farmer of America who must hold the front line in the fight to conserve our basic resource—the land. The rural population is discouraged in this battle because its weapons are poor. Engineers—civil, mechanical, agricultural, chemical, and many others—must be the armorers, and forge more effective weapons.

Let us consider first the matter of farm machinery. Certain readjustments in agriculture are universally known to be needed. Specifically, there must be greater diversification, more food crops, less dependence on cotton, the gradual introduction of livestock and an increase in small grains and grass cover crops. Cover crops have matted root structures, and so protect the soil that even hard rains do little harm.

Preaching to farmers concerning what they should do is insufficient. They encounter specific and practical difficulties in changing. One of the principal difficulties is lack of suitable farm machinery. Counteless agricultural implements are now available on the market, but few are suited to the small-farm units and special farming conditions typical of the Tennessee Valley. The large agricultural machinery manufacturers have naturally concentrated their efforts on the development of machinery for the large farms, which are generally on the flatter lands.

To illustrate this situation, consider the matter of planting small grains in legume grass sods. This cropping system was recently devised by agricultural experts for small hilly farms. It gives a year-round erosion-combatting soil cover, yielding both grain and forage on the same land. The equipment needed for this practice was found to be lacking. The problem was assigned to agricultural engineers. They designed a simple modification of the ordinary bull-tongue plow which cuts a narrow furrow in hard lespedeza sod. It has an attachment which plants small grain and distributes the required amount of fertilizer. This device has to be very cheap, a fact which made the engineering design problem quite difficult. Forty such machines were put on all types of practical farms for "use tests" and demonstrations.

Low-cost community refrigeration furnished another challenge to engineers. In two and a half years, the number of farms with electricity in the Tennessee Valley states increased from about 60,000 to 120,000. There is an immediate need for income-producing uses of rural electricity. Refrigeration is both a source of new income and a means to conserve commodities for home use. This sometimes helps just as much as increased cash. Rural refrigeration might save several million dollars' worth of meat each year in the Southeast, by reducing the curing losses in slaughtering hogs on the farm.

The University of Tennessee Engineering Experiment Station and the TVA together developed a low-cost community refrigerator which can be installed at a central point and be used by about fifteen families.

Thereupon, ten units were built and put out in ten typical rural communities for practical demonstration. Two of them are in North Georgia. Their most popular use is in connection with meat clubs for storing fresh meat for use by the members, with resulting savings in cash outgo. It is common for a member family to gain about $35 a year on its $50 share in the total investment.

In order to carry some of these engineering developments into practical use, it is sometimes essential to leave the strictly technical field and make an economic invention. An attendant cannot be employed for a fifteen-family refrigeration unit because the volume of business handled is too small. Therefore, a plan was developed under which the box unit was placed in a crossroad store, the storekeeper being permitted to use some space in return for his services in checking commodities out of the unit and keeping the machinery in running order. More customers came to his place, and he sold fresh meat, stored in his share of the space. He was well satisfied with the bargain, although he received no money for caretaking.

The Southeast faces the stubborn fact that it is a raw materials region. Historically, its development rested on supplying the world with its greatest raw product—cotton.

A raw products area is generally a specialized area. The outgoing commodity is sold at low world market prices, and the goods needed for living are purchased from industrial and commercial regions. Little "labor value" is added to the commodity which is shipped from the raw products area by its own people. On the other hand, they must pay for a comparatively large "labor value" in the manufactured goods they buy. To get a cheap automobile, for instance, a timber land owner must exchange about 300 tons of pulpwood. This is true irrespective of any effects of tariffs. Thus the people in such areas must supply large amounts

of raw products, and one result is a too-rapid use of their resources—mineral, forest, and soil. The actual situation in some of the cut-over timber regions is a warning that other "economic deserts" will follow the exhaustion of resources.

For these reasons, it seems certain that the Southeast cannot have adequate income as long as it remains so largely a raw materials region. We must increasingly add value to our raw materials. This is accomplished as industry applies scientific knowledge, engineering brains, and labor to the raw products.

New industry comes out of the laboratory. Obviously scientists and engineers must uncover the opportunities. For this function, the great corporations turn to their own magnificent research staffs. In this manner have come rayon and cellophane from cotton and wood; masonite from stumps on cut-over forest land; better enamels from soybean oil, and so on.

In addition, we greatly need more of the type of local manufacturing that is "indigenous"—the product of local brains, local leadership, local capital, and nearby markets. It should be new industry, based largely on new methods, creating new wealth and new jobs. Great cities need have no fear of this type of business development. No migration of industry is involved. And as the National Industrial Conference Board points out, the new production is matched by new markets for goods from other regions.

Few small manufacturing enterprises, however, can maintain adequate laboratories. *They should be encouraged to ask for the help of the public technical laboratories in their state universities for research assistance and guidance.*

The new T. V. A. quick-freezing process developed in cooperation with the College of Engineering of the University of Tennessee illustrates the manner in which processing may be expected to encourage diversification of agriculture, to improve the marketing of agricultural crops, and to raise the general income level. Eventually, it may be found of practical use in connection with the marketing of a part of the Georgia peach crop. During experimental operation in 1937, some 11,000 pounds of peaches were frozen, and the product was found to be acceptable.

The application of this freezing process can be illustrated by reference to the strawberry crop. About three years ago, in connection with studies of some of the raw materials in the Tennessee Valley region which might be processed locally, it was noticed that several strawberry producing regions had lost important markets on account of the shift in demand from fresh fruit to frozen fruit.

Over eleven million crates of strawberries were delivered to the American market in 1935, most of them in the form of highly perishable fresh fruit. Four southern states shipped over one-quarter of this amount during about a month's period. The market cannot absorb the product during this short time without a drop in value, and prices fall often below the cost of production. In one state, during 1934 and again in 1935, over a hundred thousand crates of strawberries remained unharvested due to glutted market conditions.

Frozen fruits and vegetables had become an established product on the market. In order for the local growers to recover their lost position, it was plainly necessary for them to have access to this new frozen food market. However, the Southeast can share in this rapidly expanding new industry only if the special engineering and economic problems which it faces are solved.

Therefore, it was decided to determine the feasibility of applying existing freezing processes to the varieties of fruit and vegetables available in the Tennessee Valley and to investigate new processes and markets which could be reached economically. A study was first made of the existing varieties and their suitability for freezing. This work, involving the freezing of some 12,000 pounds of fruits and vegetables, was begun in 1935, in cooperation with one of the agricultural experiment stations.

At the same time, a comprehensive market survey [4] was begun, covering the principal markets for frozen foods. The Agricultural Experiment Station sent out an investigator who uncovered valuable information on varieties and quantities of frozen fruit and vegetables desired by consumers, methods of packing, packaging, shipping, and the location of principal buyers most economically served from this area. The market for frozen commodities was found to be increasing very rapidly.

Distributors point out that many sources of supply are needed to insure city consumers against crop failures and shortages in any one area.

It was found that the established "cold packing" method of freezing in barrels would not solve the problems of the Tennessee Valley because many of these

[4] An eleven-page summary of this market study appeared in Food Industries, May, 1937, published by McGraw-Hill Co.

growing areas are too far from the established cold-storage plants. Berries, for instance, are best frozen within a few hours after they are picked.

Hence, a new process for quick freezing of fruits and vegetables was developed by the T. V. A. in cooperation with the College of Engineering at the University of Tennessee. A small laboratory machine was built and operated in 1936. The process differs from other processes of quick freezing in that the product is frozen at a temperature of 3° F. instead of at the extreme sub-zero temperatures which are sometimes employed. The freezing operation takes place in 6 minutes instead of two hours or more. Users who have tried the product comment on the close resemblance to the original fresh fruit.

In 1937, a sufficient quantity of frozen product was turned out so that cost records could be obtained under actual operating conditions, in order to demonstrate the economic feasibility of the operation. It was also necessary to determine how arrangements could be worked out with farmers to assure a dependable supply of raw fruit and vegetables of satisfactory quality.

To accomplish these purposes, a larger freezing machine was designed and built. An experimental freezing plant was temporarily established in a vacant building, in the outskirts of Cleveland, Tennessee, located centrally in an area which can supply seven different crops, all in demand in frozen form.

The frozen products may be held in a cold storage warehouse for periods up to a year or more, or until sold, retaining throughout this period their substantially fresh characteristics. The products of the experimental operation are sold by the University's Engineering Experiment Station in order to recover part of the cost of the experimental work and to get reliable data concerning the acceptability of the finished product.

Over one hundred thousand pounds of fruit were processed in this way during 1937. Samples were distributed through ordinary business channels, and the comments of important users indicate that there is a waiting market for a very considerable output of frozen fruits and vegetables from this region.

Some of the crops suited to the freezing process, like peas and beans, are legumes which can add nitrogen to the soil. In the case of the strawberry crop, the roots remain on the ground the year around, and the practice of "mulching" with straw helps hold moisture in the soil and prevents erosion. Most important, the relatively high and stable income obtained from a small area of land planted to fruits and vegetables for freezing enables the farmer to release a larger area of lower-income crops, such as corn or cotton, for soil-protecting cover crops.

Several large buyers say that they are anxious to have some private business establish a source of supply which can furnish fruit of the quality which has been turned out under this new process.

New processing developments give promise of helping the farmer to make readjustments in the one-crop cotton system which has been so destructive of soil and ultimately of income. There are in the South some 400 cotton oil extraction mills, an existing industry of no mean proportion. Their purchases of cotton seed and the methods of marketing the product exert a strong influence on cotton agriculture. The products of this industry are cottonseed linters (the short fiber which adheres to the seed), cottonseed hulls, cottonseed oil, and cottonseed meal. Cotton fiber and oil consist almost entirely of chemical elements (carbon, hydrogen, and oxygen) which are taken from the air and water, and thus their production does not deplete the soil. Cottonseed meal, however, carries also the three major elements contained in commercial fertilizer—phosphorus, potash, and particularly nitrogen. The more cottonseed meal sold outside the cotton belt, the greater the annual loss of these plant food elements. Over the South as a whole, the present practice is for a large portion of the meal to be marketed outside of the area.[5]

The Southern farmer must buy back the same plant food elements in commercial fertilizer. But what he gets from his cotton crop is not enough to buy back anything like the quantities of plant food elements which he ships out. This export of cottonseed and meal over the last 75 years has been a major caus of the exhaustion of the soil of the cotton belt, and in turn of low farm income.

If this meal is fed to livestock, as much as 80% of the fertilizer content of the meal may be returned to the soil, rather than being continuously drained from the area by export. It is extremely desirable, therefore, that the meal be distributed locally to the greatest possible extent and that cotton farmers introduce livestock into their farm management plans. The presence of livestock implies more grass and pasture—cover crops which control erosion.

[5]North Carolina excepted.

The cotton oil-extraction industry has encountered difficulties. Hundreds of the small mills have been operating for years at a very low rate of return. For the eight years from 1927–35 the industry's report shows an average profit of 17¢ per ton of cottonseed worth about $36. While much technical research has been applied to the treatment and use of cottonseed oil after extraction, the process and equipment used in mechanical extraction has remained comparatively unchanged for about 50 years. If it is to survive, the small cotton mill must have earnings sufficient to improve its equipment and keep up with technical advance in the industry. And it is important to the soil of the South that these local mills do survive so that the fertility of the cottonseed may remain in the area.

A number of the mills have turned to a public research laboratory in one of the engineering experiment stations. By 1935, it had been determined in the laboratory that the "cooking" operation could be greatly improved. By cooking under pressure, there resulted an important increase in oil yield, as well as a great improvement in the quality and uniformity of the meal. Since the crude products of cottonseed crushing—oil, meal, meal cake, hulls, and linters—were worth 168 million dollars during a recent year, it will be readily seen that any improvement in the efficiency of the recovery of these commodities or in their quality will be represented by a large return, much of which should find its way to the farmer.

In order to insure the continued operation of this existing industry, it is essential that the hundreds of small rural oil extraction mills find a solution to their technical difficulties. A small community mill is perhaps in the best position to exchange cottonseed meal for the farmers' cottonseed, or to sell cottonseed meal locally, thus encouraging the introduction of livestock which is so important for the permanent stabilization of cotton agriculture.

The next problem was to adapt the results of the laboratory development, referred to above, to factory practice. An experimental plant was therefore set up in which there was installed standard oil mill equipment, except for an entirely new type of cooker. This piece of equipment was designed and built by the TVA Agricultural Industries Division, and embodied the features previously tested in the laboratory. On its campus the University of Tennessee constructed a new building large enough to house the equipment. Several of the cottonseed oil mills supplied either by gift or loan the necessary items of machinery of standard mill design and size.

The University and the TVA operated this experimental plant continuously for about five weeks in 1937, buying the raw materials and disposing of the finished products through one of the cooperating cotton oil mills. It is being run again this year.

Practical plant executives and chemists cooperated with the University and the TVA in operating the experimental plant. All of the reports from those associated with the industry agree that the results will have a high commercial value—amounting to well over $1.00 per ton of seed processed at present price levels, or several times the average profit of the past few years. From preliminary reports and comments of representatives of the industry, it appears that the savings to the farmer and to the industry, if the indicated results were generally applied, would approximate several million dollars a year.

Improved processes for the cotton oil extraction mill, however, will not alone meet the problem. A study is being made of the practices of marketing cottonseed meal in rural areas in order to determine what factors affect the sale of cottonseed meal locally and how the new process can be used to further this practice. Remember that the local use of the meal is vital if the drain of nitrogenous plant food from the cotton belt is to stop. This movement is going ahead rapidly. The June 21, 1937, bulletin of the Cottonseed Crushers' Association of Georgia states that an oil mill at Laurel, Mississippi, not only markets its entire production of cottonseed meal in its local territory but, in addition, several thousand tons purchased from other oil mills.

The opinion of the industry concerning this work can be gathered from the following quotations from the May 5, 1937, bulletin of the National Cottonseed Mill Association:

"* * * Valuable research is being carried on * * * which may result in completely revolutionizing some of your manufacturing processes. * * *."

"* * * You will agree that the experiments give promise of * * * showing * * * startling and * * * valuable results."

"We know of at least one mill that is installing a cooker of the design used * * *."

There is no question in this development of the establishment of a new industry. It is a matter of effective cooperation between public technical research and an established agricultural industry, the operations of which profoundly affect the

entire cotton belt for better or for worse. It is important that the results of public research in this field be made to contribute to the permanent welfare of the region's agriculture and industry.

With the relative demand for straight cotton fabrics decreasing, other fibers, such as flax, which might be handled on existing textile machinery, become important. But it is first necessary to know whether flax growing can be adapted to a system of agriculture readjusted for land conservation.

Many of you, no doubt, know that the Georgia State Engineering and Agricultural Experiment Stations are exploring some of the possibilities of flax in the cotton belt, in cooperation with the TVA Department of Agricultural Industries. The Agricultural Experiment Station is investigating some of the agronomic problems, in order to determine whether there are areas in Georgia suited to the economic production of flax, and the competitive position of flax with relation to other crops in the region.

Similarly, the State Engineering Experiment Station at Georgia Tech is attempting to develop flax and mixed yarns suitable for use in the cotton textile industry. The preliminary report indicates that the ultimate fiber of flax is short enough for this purpose, and that it is possible to spin 100 percent flax yarn on cotton machinery. Using such yarns, commercial processes for weaving linen and cotton-linen fabrics are being studied.

It is of interest that a number of leading citizens of Georgia have *established a nonprofit corporation to promote similar technical developments.* Such an organization will doubtless be extremely helpful in introducing the results into commercial use in a manner which will promote broad public benefits. As America is a land of individual enterprise, it is natural that you should be looking to business leaders to rise to this responsibility.

The arrangement under which the flax investigations are being carried out in the State University System of Georgia is democratic in nature. It illustrates the principles underlying the relationships between the TVA and the State Agricultural and Engineering Experiment Stations. It assumes that the engineering problems of the Southeast must be solved largely by the Southeast at the grass roots, instead of relying on absentee-owned industry or federal departments. The objectives and methods were established by the local institutions.

From the point of view of the taxpayer, it should be noted that there is no duplication of expenditures; existing equipment and staff being made use of.

These two State agencies of Georgia and the TVA agreed that the flax problem was of mutual interest. The TVA is charged with water control on the land, as well as in the river channels, and is aware that only if there are new cash crops and new income from processing can the people carry their share of the responsibility. The TVA has therefore paid for some of the out-of-pocket costs, but none of the institution's regular expenditures. The Agricultural Experiment Station is Georgia's constituted agency for determining the best uses of Georgia's agricultural resources. The State Engineering Experiment Station in Georgia is rapidly assuming a similar function with respect to the determination of Georgia's industrial possibilities. It is one of the first in the Southeast to think of itself as a research institution of the people. In a recent Circular, *"Supremacy Through Research,"* it offers its facilities in cooperative research for industry in developing means of using the region's resources. This service will no doubt be found most useful by the smaller business units which cannot maintain research laboratories of their own.

Probably the greatest opportunities for engineering research of a pioneering nature are in industry, rather than in public institutions. Whether or not we succeed in preserving a democracy in America depends a great deal upon the policies and action of business. Most resources are under the control of business, and their protection is, therefore, a responsibility of business. The cottonseed industry is an excellent example, for it is cottonseed meal, not cotton fiber or oil, which carries the nitrogen away from the cotton land of the South. Greater retention of this plant-food element in the South, however, involves not only changes in business practices, but technical problems of a region-wide nature.

Neither engineers nor southern engineering educational institutions can escape such responsibilities.

They should, for instance, define very specifically the engineering problems which constitute the barriers in the way of the region's advance. C. F. Kettering, Vice President of the General Motors Corporation, has said, "A problem well defined is half solved." They should compile tentative but specific proposals for desirable industrial development. The shelves of our libraries are already full to overflowing with mere data.

*Finally, more students should be put to work on such research.* In this way they can best sense the dramatic struggle which is being waged on America's agricultural and industrial frontier in the Southeast. Nowhere is there a more exciting opportunity for service. Unfortunately, our southern institutions of engineering education have tended in the past to concentrate on the individual development of the student and have put their principal emphasis on equipping him to succeed in business. They have often encouraged our ablest and most promising young men to leave their home communities, ignoring the problems of the Southeast, and devoting their lives to the upbuilding of other regions. Such a tendency must be checked and reversed. If rightly instructed, these young people will leave the institutions of the South knowing where the problems and opportunities of their home-land lie, and more of them will set forth with the determination to build and serve at home.

Engineers must enlist in America's quest for democracy and all that it implies. It is a long quest, and we shall not achieve it except as we are guided by a faith that will not be destroyed. While a few of us serve in government, most of us will find our opportunities to contribute through private enterprise.

In the past, we have pressed mainly for individual achievement, and have been content to devote our lives to personal accomplishment or to help advance the interests of great organizations.

*Whether in public service or industry, the engineer of the future must think also of the great technical problems of the people whom he serves, and devote his talents to their solution.*

## Appendix

There has been obtained from the author the following list of projects in the program of technical research which was referred to in the text. They illustrate the type of technical problem which is believed to be of significance to the economy of the Southeast. Most of the work has been carried out jointly by the region's engineering colleges or agricultural experiment stations and the TVA's Department of Agricultural Industries.

### Development and demonstration of equipment to enable farmers to save and use their own products

A. Special farm equipment to encourage planting of soil conserving crops.
   1. Lespedeza seed harvester to collect seed on the farm.
   2. Low cost thresher for grains and legumes, adapted to small acreages.
   3. ½ h. p. electric feed grinder with automatic controlling device for farm grinding of animal feeds.
   4. Seed and fertilizer distributor plow for planting fall grains in lespedeza sod.

B. Rural community refrigerator units, to enable farmers to preserve fresh meat and other farm products for home use, reducing present losses and encouraging diversified agriculture.

### Development and demonstration of equipment for increasing cash crop income

A. Bary hay drying to increase feeding value and reduce weather losses.
B. Tobacco curing to improve quality through electric control of heat and moisture.
C. Sorghum syrup processing in community plants to obtain uniform grade and better marketing.
D. Single farm installations of irrigation for truck crops, for better yield in both normal weather and during dry periods.
E. Electric sweetpotato curing for higher quality and reduced losses.

### Development of new and improved methods for local processing of the region's farm products

A. Growing and processing new crops, such as flax for oil and fiber.
B. Quick freezing fruits and vegetables.
   1. Study of transportation facilities and outlets for frozen foods.
   2. Growing varieties suited to freezing.
   3. Design of freezing machinery and other equipment.
   4. Microscopic studies of effects of freezing on products.
   5. Experimental pilot plant operations.

C. Dehydration as a means of preserving fruits and vegetables for more stable markets.
D. Processing of vegetable oil seeds for proteins and industrial oils.
E. Survey of livestock industry in relation to a soil conserving cover crop agriculture, and as a consumer of southern proteins.
F. Investigation of markets for frozen foods, vegetable oil seed products, and livestock products.

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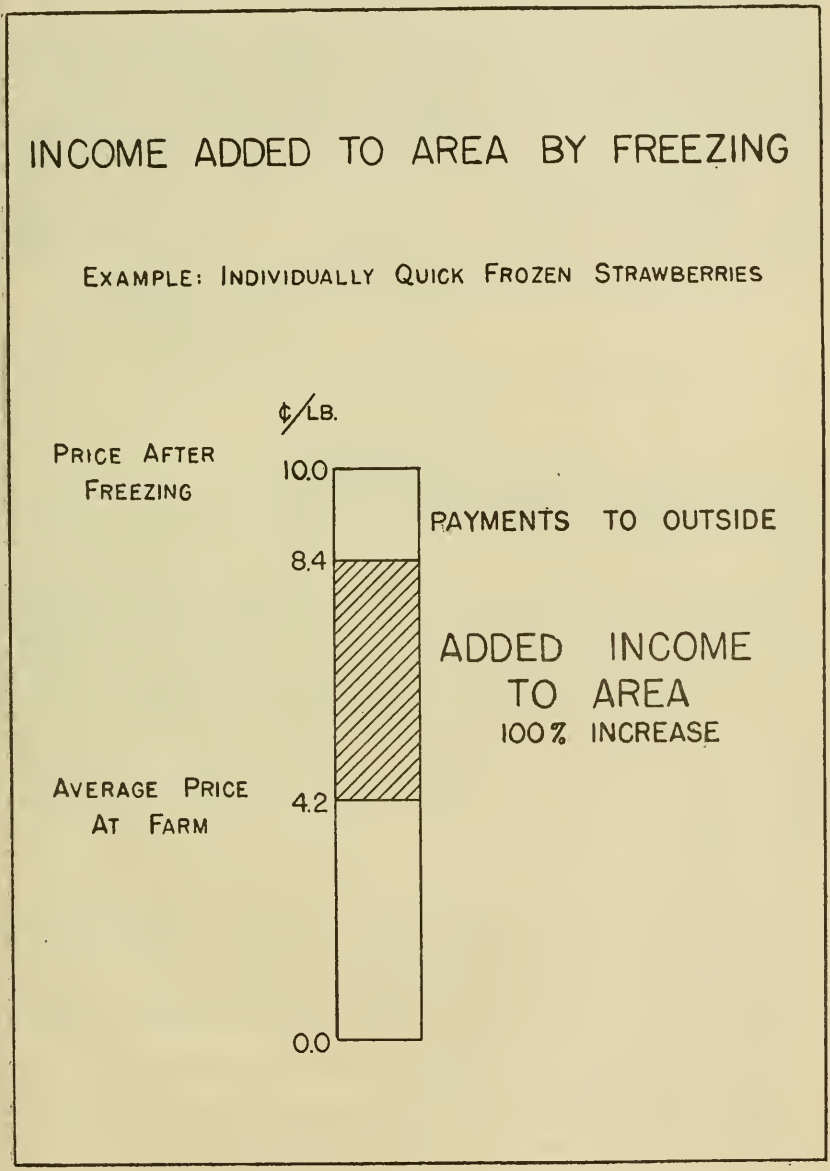
EXHIBIT No. 635



"Exhibit No. 636," appears in the appendix to Hearings, Part VII, p. 3279.

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Exhibit No. 637

[Telegram]

1939 May 24, A. M. 11, 37.

WR75 154 DL 7 extra—Detroit, Mich., 24 1103A

Louis F. Davis,
*Room 625, Ambassador Hotel:*

Association knows of at least 25 companies in urgent need of financial assistance immediately to avoid forced liquidation within a period of a few months. Adjustment bureau handled 35 liquidations during 1938 and 12 to date this year. Majority of companies unable to obtain financial assistance or an extension of time to carry on. Many concerns attempting to finance operations found it necessary to borrow on accounts receivable, of which only a certain percentage became available and then only at a high rate of interest. This tied up considerable of the working capital in the reserve requirements of the finance companies. Many of the liquidations did not allow a distribution to creditors because all funds were consumed by taxes, wages, and other preferred items. If financial assistance could have been obtained at a reasonably early period of time, a number of these businesses could have been saved.

W. G. Starr,
*Manager, Adjustment Bureau, Detroit,*
*Association of Credit Men.*

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Exhibit No. 638

MEMORANDUM

To: The Temporary National Economic Committee.
From: The Investment Banking Section, Monopoly Study, Securities and Exchange Commission.
Subject: Survey of the Capital Needs of Small Businesses in the Detroit, Michigan Area.

During the period from April 17 to April 29, 1939, inclusive, officers, partners, and proprietors of 67 small businesses were interviewed and information elicited concerning their need for additional working or equity capital. The names of these concerns were furnished through Dun and Bradstreet, Inc., The Junior Chamber of Commerce, The Detroit Board of Commerce, The National Association of Small Business Men (Michigan Division) and several which were selected at random. Those contacted represented retailers, wholesalers, and manufacturers and embraced the following types of industry, viz, building, food products, auto accessories, steel products, extraction, lumber, tool and die, electric manufacture, men's furnishings, plastics, structural steel, pottery, welding supply, chair and sofa springs, foundry, chemical, produce, and miscellaneous.

For the convenience of the Committee in appraising the results of the study in the Detroit area the following composite data are submitted:

These 67 companies, each of which have been in existence from one to thirty years, showed total assets ranging from $9,000 to $1,000,000 with an average for each of approximately $46,000. Two of the companies reported the recent filing of bankruptcy proceedings.

Officers of 55 of these companies indicated a willingness to avail themselves of the facilities of a Federal credit agency for small business if same were created, while 48 companies reported the immediate need for either additional working or equity capital or both.

Of these 48 companies, practically all considered themselves able to pledge or collateralize various of their assets.

37 of these 48 companies had been refused bank credit for various reasons within the past few years, while 14 have been granted aid. 7 have been refused R. F. C. or Federal Reserve Bank loans, while 2 have been aided

by the R. F. C. 20 of the 37 companies are presently borrowing from finance or loan companies, each paying from 13 percent to as much as 24 percent per annum in interest charges with the consequent tying up of assets.

The 48 companies are in need of a total of $586,000 for working capital for a period of from 3 to 9 months and $775,200 for equity capital for a period of from 3 to 10 years. With this aid officers of these companies estimate that approximately 1,080 new employees could be hired, or 1 person for approximately every $1,300 in new money obtained.

On the basis of the above, each working-capital loan need averages $12,200 while each equity-capital loan need averages $16,100. Thus the average combined working-and equity-capital loan amounts to $14,150.

The 48 companies estimate that an operating economy of from 2 to 5 percent could be effected if additional equity capital were made available, while an operating or debt cost savings of from 4 to 15 percent could be effected if additional working capital were secured.

From the latest financial data available on 47 of these 48 concerns there is shown a combined total of $244,232 of cash, $758,168 of receivables, $923,623 of payables, and $471,992 of loans, which includes one loan obtained from the R. F. C. amounting to $250,000.

Wm. S. Whitehead,
Lloyd C. Mathers,
Ernest Jerome Hopkins.

May 23, 1939.

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"Exhibit No. 639" appears in Hearings, Part VIII, appendix, p. 3475

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"Exhibit No. 640" appears in text facing p. 3992

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## SUPPLEMENTAL DATA

(Begins on following page)

Summary table incorporating revisions based on later figures submitted by Lauchlin Currie. See text pp. 3520–3538

NOVEMBER 1939.

*Net and gross national income and income-producing expenditures that offset saving, 1921–38*

[In millions of dollars]

| Year | Net national income | Gross national income | Income-producing expenditures that offset saving | | | | | | | Adjusted [2] total | Adjusted total as percent of gross national income |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Plant and equipment[1] | Private housing and non-profit construction | Change in inventories | Foreign balance | Government | Change in consumer credit | Total | | |
| 1921 | 57,683 | 63,751 | 5,233 | 2,313 | 47 | 1,414 | 649 | [3] −20 | 9,636 | | |
| 1922 | 58,704 | 64,295 | 5,784 | 3,801 | 514 | 450 | 745 | [3] 730 | 12,024 | 11,069 | 17.1 |
| 1923 | 68,281 | 74,784 | 7,902 | 4,821 | 2,964 | 167 | 363 | [3] 1,046 | 17,263 | 15,167 | 20.3 |
| 1924 | 68,904 | 75,161 | 7,650 | 5,229 | −1,056 | 712 | 615 | 311 | 13,461 | 14,982 | 19.9 |
| 1925 | 73,275 | 79,686 | 8,189 | 5,750 | 1,523 | 386 | 527 | 842 | 17,217 | 15,715 | 19.7 |
| 1926 | 77,600 | 84,813 | 9,126 | 5,535 | 1,246 | 156 | 245 | 648 | 16,956 | 17,060 | 20.1 |
| 1927 | 75,412 | 82,708 | 8,777 | 5,357 | 308 | 507 | 366 | 217 | 15,532 | 16,102 | 19.5 |
| 1928 | 78,633 | 86,167 | 8,846 | 5,019 | 102 | 725 | 732 | 821 | 16,245 | 15,960 | 18.5 |
| 1929 | 81,917 | 89,984 | 10,157 | 3,761 | 2,146 | 447 | 693 | 987 | 18,191 | 17,413 | 19.4 |
| 1930 | 71,965 | 79,764 | 8,340 | 2,291 | −631 | 629 | 1,500 | −613 | 11,516 | 14,186 | 17.8 |
| 1931 | 56,709 | 63,901 | 5,123 | 1,735 | −1,190 | 160 | 3,784 | −1,128 | 8,484 | 9,697 | 15.2 |
| 1932 | 41,034 | 47,446 | 2,799 | 709 | −2,369 | 131 | 2,687 | −1,485 | 2,472 | 4,877 | 10.3 |
| 1933 | 40,101 | 46.217 | 2,371 | 458 | −1,106 | 215 | 1,236 | −150 | 3,024 | 2,803 | 6.1 |
| 1934 | 49,290 | 55,839 | 3,436 | 521 | −1,552 | 461 | 2,239 | 415 | 5,520 | 4.522 | 8.1 |
| 1935 | 55,137 | 61,681 | 4,349 | 913 | 767 | 183 | 3,122 | 858 | 10,192 | 8,323 | 13.5 |
| 1936 | [3] 64,705 | [3] 71,400 | 5,783 | 1,536 | 1,790 | −153 | 3,827 | 1,355 | 14,138 | 12,560 | 17.6 |
| 1937 | [3] 71,927 | [3] 79,400 | 7,570 | 1,908 | 3,072 | −24 | 742 | 891 | 14,159 | 14,151 | 17.8 |
| 1938 | [3] 63,450 | [3] 70,800 | [4] 5,471 | 1,817 | −604 | 965 | [4] 2,400 | [4] −1,400 | [4] 8,649 | [4] 10,853 | [4] 15.3 |

[1] The revised figures on which these totals are based are presented in the Federal Reserve Bulletin, September, 1939, pp. 731–736.
[2] 60 percent of current year plus 40 percent of preceding year.
[3] Estimated.
[4] Preliminary.

1923–29 average=19.6 percent.
NOTE.—For sources and methods see statement submitted to the Temporary National Economic Committee by Lauchlin Currie on May 16, 1939.

The following data is printed herewith in connection with the testimony of John W. Barriger, III. See text, p. 3565.

*Class I railroads in receivership or trusteeship*

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID—YEARS ENDED DECEMBER 31, 1932-1938, INCLUSIVE

[000 omitted]

| | Date of Appointment of Receiver or Trustee | 1938 | 1937 | 1936 | 1935 | 1934 | 1933 | 1932 | Total 1932-1938, Inclusive |
|---|---|---|---|---|---|---|---|---|---|
| EASTERN DISTRICT | | | | | | | | | |
| Receivers: | | | | | | | | | |
| Pittsburg, Shawmut & Northern R. R. Co | 8- 1-1905 | $46 | | | | | | | $46 |
| Wabash Ry. Co | 12- 1-1931 | | $802 | $1,781 | $827 | | | | 3,410 |
| Ann Arbor R. R. Co | 12- 4-1931 | | | 105 | 189 | $57 | | | 351 |
| Total | | 46 | 802 | 1,886 | 1,016 | 57 | | | 3,807 |
| Trustees: | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4- 4-1933 | 49 | 219 | 328 | 387 | 339 | $288 | | 1,610 |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | 663 | 1,326 | 1,701 | 561 | 176 | | | 4,427 |
| Chicago, Indianapolis & Louisville Ry. Co | 1- 1-1934 | | | 549 | 142 | 34 | | | 725 |
| Erie Railroad Co | 1-18-1938 | 631 | | | | | | | 631 |
| New York, New Haven & Hartford R. R. Co | 10-23-1935 | | 1,520 | 6,982 | | | | | 8,502 |
| New York, Ontario & Western Ry. Co | 5-21-1937 | | | | | | | | |
| New York, Susquehanna & Western R. R. Co | 6- 1-1937 | 85 | 114 | | | | | | 199 |
| Total | | 1,428 | 3,179 | 9,560 | 1,090 | 549 | 288 | | 16,094 |
| Total Eastern District | | 1,474 | 3,981 | 11,446 | 2,106 | 606 | 288 | | 19,901 |
| SOUTHERN DISTRICT | | | | | | | | | |
| Receivers: | | | | | | | | | |
| Central of Georgia Ry | 12-20-1932 | | 72 | 654 | 600 | 223 | 168 | | 1,717 |
| Florida East Coast Ry. Co | 9- 1-1931 | 410 | 90 | 150 | | | | | 650 |
| Georgia & Florida R. R | 10-20-1929 | | | | | | | | |
| Mobile & Ohio R. R. Co | 6- 3-1932 | 825 | 766 | 1,020 | | | | | 2,611 |
| Norfolk Southern R. R. Co | 7-28-1932 | 274 | 450 | 390 | 342 | 462 | 262 | | 2,180 |
| Seaboard Air Line Ry. Co | 12-23-1930 | | 2,703 | 1,676 | | 62 | 1,447 | | 5,888 |
| Total | | 1,509 | 4,081 | 3,890 | 942 | 747 | 1,877 | | 13,046 |
| Trustees: None. | | | | | | | | | |
| Total Southern District | | 1,509 | 4,081 | 3,890 | 942 | 747 | 1,877 | | 13,046 |

*Class I railroads in receivership or trusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID—YEARS ENDED DECEMBER 31, 1932-1938, INCLUSIVE

[000 omitted]

| | Date of Appointment of Receiver or Trustee | 1938 | 1937 | 1936 | 1935 | 1934 | 1933 | 1932 | Total 1932-1938, Inclusive |
|---|---|---|---|---|---|---|---|---|---|
| WESTERN DISTRICT | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $616 | $430 | $692 | ------- | ------- | $119 | ------- | $1,857 |
| Trustees: | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | 445 | 581 | 5,312 | ------- | ------- | ------- | ------- | 6,338 |
| Chicago, St. Paul, Minneapolis & Omaha Ry | (1) | ------- | ------- | 291 | $5 | ------- | ------- | ------- | 296 |
| Chicago Great Western R. R. Co | 3- 1-1935 | 340 | 573 | 1,863 | 949 | ------- | ------- | ------- | 3,725 |
| Chicago, Milwaukee, St. Paul & Pacific R. R. Co | 7- 1-1935 | ------- | 5,437 | 2,755 | ------- | ------- | ------- | ------- | 8,192 |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | ------- | 1,542 | ------- | ------- | ------- | ------- | ------- | 1,542 |
| Chicago, Rock Island & Gulf Ry. Co | 11- 1-1933 | ------- | 189 | 8 | ------- | ------- | ------- | ------- | 197 |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | ------- | ------- | 1,453 | 1,310 | ------- | ------- | ------- | 2,763 |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | ------- | 290 | ------- | ------- | ------- | ------- | ------- | 290 |
| Minneapolis, St. Paul & Sault Ste. Marie Ry. Co | 12-31-1937 | ------- | ------- | ------- | ------- | ------- | ------- | ------- | ------- |
| Missouri Pacific R. R. Co | 4- 1-1933 | 3,302 | 3,246 | 10,284 | 3,023 | $3,892 | ------- | ------- | 23,747 |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | ------- | ------- | ------- | ------- | 416 | 1,215 | ------- | 1,631 |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | 406 | 267 | ------- | ------- | ------- | ------- | ------- | 673 |
| International-Great Northern R. R. Co | 4- 1-1933 | ------- | ------- | ------- | ------- | 307 | ------- | ------- | 307 |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | 1,311 | 1,456 | 116 | 411 | 689 | 615 | ------- | 4,598 |
| San Antonio, Uvalde & Gulf R. R. Co | 5- 1-1933 | ------- | ------- | ------- | ------- | 39 | ------- | ------- | 39 |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | ------- | 3,785 | 4,895 | 1,951 | 2,566 | 3,573 | ------- | 16,770 |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | 3,248 | 3,636 | 4,028 | ------- | ------- | ------- | ------- | 10,912 |
| St. Louis Southwestern Ry. Co. of Texas | 1- 1-1936 | ------- | ------- | ------- | ------- | ------- | ------- | ------- | ------- |
| Spokane International Ry. Co | 8-28-1933 | 6 | 57 | 47 | ------- | ------- | ------- | ------- | 110 |
| Western Pacific R. R. Co | 8- 1-1935 | ------- | ------- | 679 | 1,227 | ------- | ------- | ------- | 1,906 |
| Total | ---------- | 9,058 | 21,059 | 31,731 | 8,876 | 7,909 | 5,403 | ------- | 84,036 |
| Total Western District | ---------- | 9,674 | 21,489 | 32,423 | 8,876 | 7,909 | 5,522 | ------- | 85,893 |
| Grand Total | ---------- | 12,657 | 29,561 | 47,759 | 11,924 | 9,262 | 7,687 | ------- | 118,840 |

[1] Company has not been formally placed in bankruptcy or receivership but added to above list because of default on its obligations.

## EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1938

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1938[2] | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid 1938 | Total Income 1938 | Excess of Total Income Over Fixed Chgs. Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| EASTERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Pittsburgh, Shawmut & Northern R. R. Co | 8- 1-1905 | $128 | $614 | $737 | $123 | $10 | $10 | | $123 | $5 | $51 | $46 |
| Wabash Railway Co | 12- 1-1931 | 7,680 | 19,129 | 24,576 | 5,456 | 2,043 | 2,040 | D $3 | 5,453 | 2,227 | 1,652 | |
| Ann Arbor R. R. Co | 12- 4-1931 | 455 | 1,099 | 1,229 | 130 | 24 | 24 | | 130 | 325 | 136 | |
| Total | | 8,263 | 20,833 | 26,542 | 5,709 | 2,077 | 2,074 | D 3 | 5,706 | 2,557 | 1,839 | 46 |
| Trustees: | | | | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4- 4-1933 | 244 | 806 | 926 | 120 | 58 | 58 | | 120 | 124 | 173 | 49 |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | 1,507 | 9,326 | 11,346 | 2,020 | 337 | 336 | D 1 | 2,019 | 252 | 915 | 663 |
| Chicago, Indianapolis & L'ville Ry. Co | 1- 1-1934 | 14,374 | 6,470 | 7,917 | 1,447 | 52 | 52 | | 1,447 | 60 | Def. 327 | |
| Erie Railroad Co | 1-18-1938 | 13,868 | 1,932 | 12,961 | 11,029 | 1,981 | 1,733 | D 248 | 10,781 | 3,593 | 4,224 | 631 |
| New York, New Haven & Hartford R. R. Co | 10-23-1935 | 1,414 | 21,493 | 32,396 | 10,903 | 2,674 | 2,397 | D 277 | 10,626 | 3,242 | 2,943 | |
| New York, Ontario & Western Ry. Co | 5-21-1937 | 648 | 1,263 | 2,539 | 1,276 | 312 | 311 | D 1 | 1,275 | 139 | Def. 577 | |
| New York Susq. & Western R. R. Co | 6- 1-1937 | | 420 | 1,048 | 628 | 123 | 114 | D 9 | 619 | 29 | 114 | 85 |
| Total | | 34,326 | 41,710 | 69,133 | 27,423 | 5,537 | 5,001 | D 536 | 26,887 | 7,439 | 7,465 | 1,428 |
| Total, Eastern District | | 42,589 | 62,543 | 95,675 | 33,132 | 7,614 | 7,075 | D 539 | 32,593 | 9,996 | 9,304 | 1,474 |
| SOUTHERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Central of Georgia Railway Co | 12-20-1932 | 3,456 | 13,056 | 15,723 | 2,667 | 656 | 651 | D 5 | 2,662 | 794 | 628 | |
| Florida East Coast Railway Co | 9- 1-1931 | 2,946 | 14,639 | 16,890 | 2,251 | 828 | 816 | D 12 | 2,239 | 707 | 1,117 | 410 |
| Georgia & Florida Railroad | 10-20-1929 | 689 | 4,011 | 4,630 | 619 | 53 | 53 | | 619 | 70 | Def. 25 | |
| Mobile & Ohio R. R. | 6- 3-1932 | 1,573 | 7,764 | 9,342 | 1,578 | 518 | 313 | D 205 | 1,373 | 200 | 1,025 | 825 |
| Norfolk Southern R. R. Co | 7-28-1932 | 881 | 4,250 | 5,020 | 770 | 276 | 264 | D 12 | 758 | 126 | 400 | 274 |
| Seaboard Air Line Ry. Co | 12-23-1930 | 9,330 | 54,089 | 61,537 | 7,448 | 2,283 | 2,392 | 109 | 7,557 | 1,773 | 1,765 | |
| Total | | 18,878 | 97,809 | 113,142 | 15,333 | 4,614 | 4,489 | D 125 | 15,208 | 3,670 | 4,910 | 1,509 |
| Trustees: None. | | | | | | | | | | | | |
| Total, Southern District | | 18,878 | 97,809 | 113,142 | 15,333 | 4,614 | 4,489 | D 125 | 15,208 | 3,670 | 4,910 | 1,509 |

[2] Includes contingent charges.

*Class I railroads in receivership or trusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1938—Continued

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1938 | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid 1938 | Total Income 1938 | Excess of Total Income Over Fixed Chgs. Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| WESTERN DISTRICT | | | | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $2,972 | $37,187 | $40,026 | $2,839 | $309 | $308 | D $1 | $2,838 | $134 | $750 | $616 |
| Trustees: | | | | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | 16,550 | 40,697 | 56,252 | 15,555 | 2,920 | 2,889 | D 31 | 15,524 | 1,026 | 1,471 | 445 |
| Chicago, St. Paul, Minn. & Omaha | (1) | 2,491 | 13,586 | 15,896 | 2,310 | 775 | 773 | D 2 | 2,308 | 183 | Def. 177 | |
| Chicago Great Western R. R. Co | 3- 1-1935 | 1,855 | 4,846 | 6,320 | 1,474 | 492 | 490 | D 2 | 1,472 | 383 | 723 | 340 |
| Chicago, Milwaukee, St. Paul & Pac. R. R. Co | 7- 1-1935 | 24,098 | 26,136 | 37,796 | 11,660 | 2,665 | 2,641 | D 24 | 11,636 | 12,462 | 6,203 | |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | 14,363 | 51,401 | 62,786 | 11,385 | 255 | 260 | 5 | 11,390 | 2,973 | 2,963 | |
| Chicago, Rock Island & Gulf Ry Co | 11- 1-1933 | 1,409 | 3,993 | 4,918 | 925 | 115 | 115 | | 295 | 484 | 334 | |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | 6,137 | 18,468 | 23,561 | 5,093 | 1,085 | 1,095 | 10 | 5,103 | 1,034 | 479 | |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | 941 | 22,695 | 23,554 | 859 | 3 | 2 | D 1 | 858 | 83 | Def. 110 | |
| Minneapolis, St. Paul & Sault Ste. Marie Ry. Co | 12-31-1937 | 6,354 | 4,286 | 9,498 | 5,212 | 347 | 159 | D 188 | 5,024 | 1,330 | Def. 44 | |
| Missouri Pacific R. R. Co | 4- 1-1933 | 21,113 | 79,713 | 97,682 | 17,969 | 5,808 | 5,780 | D 28 | 17,941 | 3,172 | 6,474 | 3,302 |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | 2,782 | 8,351 | 9,536 | 1,185 | 632 | 632 | | 1,185 | 1,597 | 743 | |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | 175 | 617 | 741 | 124 | 21 | 21 | | 124 | 51 | 457 | 406 |
| International-Great Northern R. R. Co | 4- 1-1933 | 2,812 | 6,896 | 8,499 | 1,603 | 8 | 6 | D 2 | 1,601 | 1,211 | Def. 559 | |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | 804 | 2,712 | 3,487 | 775 | 71 | 69 | D 2 | 773 | 31 | 1,342 | 1,311 |
| San Antonio, Uvalde & Gulf R. R. Co | 5- 1-1933 | 244 | 4,174 | 4,395 | 221 | 92 | 92 | | 221 | 23 | Def. 491 | |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | 12,795 | 63,794 | 75,059 | 11,265 | 2,151 | 2,134 | D 17 | 11,248 | 1,547 | 1,360 | |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | 2,508 | 5,214 | 7,509 | 2,295 | 245 | 139 | D 106 | 2,189 | 319 | 3,567 | 3,248 |
| St. Louis Southwestern Ry Co. of Texas | 1- 1-1936 | 610 | 310 | 429 | 119 | 11 | 11 | | 119 | 491 | Def. 1,320 | |
| Spokane International Ry. Co | 8-28-1933 | 273 | 1,050 | 1,260 | 210 | | | | 210 | 63 | 69 | 6 |
| Western Pacific R. R. Co | 8- 1-1935 | 3,718 | 11,552 | 14,431 | 2,789 | 896 | 895 | D 1 | 2,878 | 840 | Def. 600 | |
| Total Trustees | | 122,032 | 370,491 | 463,609 | 93,118 | 18,592 | 18,203 | D 389 | 92,729 | 29,303 | 22,884 | 9,058 |
| Total, Western District | | 125,004 | 407,678 | 503,635 | 95,957 | 18,901 | 18,511 | D 390 | 95,567 | 29,437 | 23,634 | 9,674 |
| Grand Total | | 186,471 | 568,030 | 712,452 | 144,422 | 31,129 | 30,075 | D 1,054 | 143,368 | 43,103 | 37,848 | 12,657 |

[1] Company has not been formally placed in bankruptcy or receivership but added to above list because of default on its obligations.

D=Decrease.
Def.=Deficit.

## EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1937

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1937 [2] | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid 1937 | Total Income 1937 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| EASTERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Pittsburg, Shawmut & Northern R. R. Co | 8- 1-1905 | $716 | $491 | $614 | $123 | $10 | $10 | ---------- | $123 | $593 | Def. $1,360 | ---------- |
| Wabash Ry. Co | 12- 1-1931 | 7,615 | 15,338 | 19,120 | 3,782 | 2,078 | 2,043 | D $35 | 3,747 | 3,868 | 4,670 | $802 |
| Ann Arbor R. R. Co | 12- 4-1931 | 457 | 968 | 1,099 | 131 | 26 | 24 | D 2 | 129 | 328 | 316 | ---------- |
| Total | | 8,788 | 16,797 | 20,833 | 4,036 | 2,114 | 2,077 | D 37 | 3,999 | 4,789 | 3,626 | 802 |
| Trustees: | | | | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4- 4-1933 | 310 | 684 | 806 | 122 | 59 | 58 | D 1 | 121 | 189 | 408 | 219 |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | 2,274 | 7,310 | 9,326 | 2,016 | 341 | 337 | D 4 | 2,012 | 262 | 1,588 | 1,326 |
| Chicago, Indianapolis & Louisville Ry. Co | 1- 1-1934 | 1,510 | 5,009 | 6,470 | 1,461 | 74 | 52 | D 22 | 1,439 | 71 | Def. 23 | ---------- |
| Erie Railroad Co | 1-18-1938 | | | | | | | | | | | |
| New York, New Haven & Hartford R. R. Co | 10-23-1935 | 14,556 | 13,174 | 21,493 | 8,319 | 2,567 | 2,674 | 107 | 8,426 | 6,130 | 7,650 | 1,520 |
| New York, Ontario & Western Ry. Co | 5-21-1937 | 1,547 | 17 | 1,263 | 1,246 | 314 | 312 | D 2 | 1,244 | 303 | Def. 126 | ---------- |
| New York, Susquehanna & Western R. R. Co | 6- 1-1937 | 656 | 80 | 420 | 340 | 122 | 123 | 1 | 341 | 315 | 429 | 114 |
| Total | | 20,853 | 26,274 | 39,778 | 13,504 | 3,477 | 3,556 | 79 | 13,583 | 7,270 | 9,926 | 3,179 |
| Total Eastern District | | 29,641 | 43,071 | 60,611 | 17,540 | 5,591 | 5,633 | 42 | 17,582 | 12,059 | 13,552 | 3,981 |
| SOUTHERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Central of Georgia | 12-20-1932 | 3,468 | 10,762 | 13,056 | 2,294 | 664 | 656 | D 8 | 2,286 | 1,182 | 1,254 | 72 |
| Florida East Coast Ry. Co | 9- 1-1931 | 2,975 | 12,393 | 14,639 | 2,246 | 845 | 828 | D 17 | 2,229 | 746 | 836 | 90 |
| Georgia & Florida R. R | 10-20-1929 | 671 | 3,458 | 4,011 | 553 | 54 | 53 | D 1 | 552 | 119 | 45 | ---------- |
| Mobile & Ohio R. R. Co | 6- 3-1932 | 1,625 | 6,345 | 7,764 | 1,419 | 533 | 518 | D 15 | 1,404 | 221 | 987 | 766 |
| Norfolk Southern R. R. Co | 7-28-1932 | 880 | 3,479 | 4,250 | 771 | 280 | 276 | D 4 | 767 | 113 | 563 | 450 |
| Seabord Air Line Ry. Co | 12-23-1930 | 9,319 | 41,527 | 54,089 | 12,562 | 7,552 | 2,283 | D 5,269 | 7,293 | 2,026 | 4,729 | 2,703 |
| Total | | 18,938 | 77,964 | 97,809 | 19,845 | 9,928 | 4,614 | D 5,314 | 14,531 | 4,407 | 8,414 | 4,081 |
| Trustees: None. | | | | | | | | | | | | |
| Total, Southern District | | 18,938 | 77,964 | 97,809 | 19,845 | 9,928 | 4,614 | D 5,314 | 14,531 | 4,407 | 8,414 | 4,081 |

[2] Includes contingent charges.

*Class I railroads in receivership ort rusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1937—Continued

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1937 | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid 1937 | Total Income 1937 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| WESTERN DISTRICT | | | | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $2,995 | $34,347 | $37,187 | $2,840 | $312 | $309 | D $3 | $2,837 | $158 | $588 | $430 |
| Trustees: | | | | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | 16,703 | 25,350 | 40,697 | 15,347 | 2,921 | 2,920 | D 1 | 15,346 | 1,357 | 1,938 | 581 |
| Chicago, St. Paul, Minneapolis & Omaha | (1) | 2,499 | 11,277 | 13,586 | 2,309 | 778 | 775 | D 3 | 2,306 | 193 | Def. 108 | |
| Chicago Great Western R. R. Co | 3- 1-1935 | 1,899 | 3,381 | 4,846 | 1,465 | 495 | 492 | D 3 | 1,462 | 437 | 1,010 | 573 |
| Chicago, Milwaukee, St. Paul & Pac. Ry. Co | 7- 1-1935 | 14,902 | 15,742 | 26,136 | 10,394 | 2,645 | 2,665 | 20 | 10,414 | 4,488 | 9,925 | 5,437 |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | 14,471 | 39,783 | 51,401 | 11,618 | 410 | 255 | D 155 | 11,463 | 3,008 | 4,550 | 1,542 |
| Chicago, Rock Island & Gulf Ry. Co | 11- 1-1933 | 1,399 | 3,067 | 3,993 | 926 | 115 | 115 | | 926 | 473 | 662 | 189 |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | 6,008 | 12,966 | 18,468 | 5,502 | 1,047 | 1,085 | 38 | 5,540 | 468 | 63 | |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | 945 | 21,693 | 22,695 | 1,002 | 255 | 3 | D 252 | 750 | 195 | 485 | 290 |
| Minneapolis, St. Paul & Sault Ste. Marie Ry. Co | 12-31-1937 | 8,039 | 3,823 | 4,286 | 463 | 370 | 347 | D 23 | 440 | 7,599 | 2,578 | |
| Missouri Pacific R. R. Co | 4- 1-1933 | 21,120 | 67,804 | 79,713 | 11,909 | 5,825 | 5,808 | D 17 | 11,892 | 9,228 | 12,474 | 3,246 |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | 2,783 | 7,816 | 8,351 | 535 | 603 | 632 | 29 | 564 | 2,219 | 1,299 | |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | 175 | 494 | 617 | 123 | 21 | 21 | | 123 | 52 | 319 | 267 |
| International-Great Northern R. R. Co | 4- 1-1933 | 2,826 | 5,313 | 6,896 | 1,583 | 10 | 8 | D 2 | 1,581 | 1,245 | 254 | |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | 818 | 2,528 | 2,712 | 184 | 72 | 71 | D 1 | 183 | 635 | 2,091 | 1,456 |
| San Antonio, Uvalda & Gulf R. R. Co | 5- 1-1933 | 242 | 3,953 | 4,174 | 221 | 92 | 92 | | 221 | 21 | Def. 307 | |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | 12,855 | 52,266 | 63,794 | 11,528 | 2,178 | 2,151 | D 27 | 11,501 | 1,354 | 5,139 | 3,785 |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | 2,741 | 3,141 | 5,214 | 2,073 | 252 | 245 | D 7 | 2,066 | 675 | 4,311 | 3,636 |
| St. Louis Southwestern Ry. Co. of Texas | 1- 1-1936 | 610 | 189 | 310 | 121 | 11 | 11 | | 121 | 489 | Def. 1,792 | |
| Spokane International | 8-28-1933 | 273 | 840 | 1,050 | 210 | | | | 210 | 63 | 120 | 57 |
| Western Pacific R. R. Co | 8- 1-1935 | 3,635 | 8,760 | 11,552 | 2,792 | 869 | 896 | 27 | 2,819 | 816 | 317 | |
| Total | | 114,943 | 290,186 | 370,491 | 80,305 | 18,969 | 18,592 | D 377 | 79,928 | 35,015 | 45,328 | 21,059 |
| Total Western District | | 117,938 | 324,533 | 407,678 | 83,145 | 19,281 | 18,901 | D 380 | 82,765 | 35,173 | 45,916 | 21,489 |
| Grand total | | 166,517 | 445,568 | 566,098 | 120,530 | 34,800 | 29,148 | D 5,652 | 114,878 | 51,639 | 67,882 | 29,551 |

[1] Compnay has not been formally placed in bankruptcy or receivership but added to above list because of default on its obligations.

D=Decrease.
Def.=Deficit.

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1936

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges 1936 [2] | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increase | Fixed Charges Paid, 1936 | Total Income, 1936 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| EASTERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Pittsburg, Shawmut & Northern R. R. Co | 8- 1-1905 | $716 | $369 | $491 | $122 | $10 | $10 | | $122 | $594 | $76 | |
| Wabash Ry. Co | 12- 1-1931 | 7,721 | 12,688 | 15,338 | 2,650 | 1,741 | 2,078 | $337 | 2,987 | 4,734 | 6,515 | $1,781 |
| Ann Arbor R. R. Co | 12- 4-1931 | 466 | 839 | 968 | 129 | 28 | 26 | D 2 | 127 | 339 | 444 | 105 |
| Total | | 8,903 | 13,896 | 16,797 | 2,901 | 1,779 | 2,114 | 335 | 3,236 | 5,667 | 7,035 | 1,886 |
| Trustees: | | | | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4- 4-1933 | 363 | 572 | 684 | 112 | 56 | 59 | 3 | 115 | 248 | 576 | 328 |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | 2,249 | 5,293 | 7,310 | 2,017 | 336 | 341 | 5 | 2,022 | 227 | 1,928 | 1,701 |
| Chicago, Indianapolis & Louisville Ry. Co | 1- 1-1934 | 1,533 | 3,533 | 5,009 | 1,476 | 75 | 74 | D 1 | 1,475 | 58 | 607 | 549 |
| Erie Railroad Co | 1-18-1938 | | | | | | | | | | | |
| New York, New Haven & Hartford R. R. Co | 10-23-1935 | 15,214 | 3,457 | 13,174 | 9,717 | 2,315 | 2,567 | 252 | 9,969 | 5,245 | 12,227 | 6,982 |
| New York, Ontario & Western Ry. Co | 5-21-1937 | | | | | | | | | | | |
| New York, Susquehanna & Western R. R. Co | 6- 1-1937 | | | | | | | | | | | |
| Total | | 19,359 | 12,855 | 26,177 | 13,322 | 2,782 | 3,041 | 259 | 13,581 | 5,778 | 15,338 | 9,560 |
| Total, Eastern District | | 28,262 | 26,751 | 42,974 | 16,223 | 4,561 | 5,155 | 594 | 16,817 | 11,445 | 22,373 | 11,446 |
| SOUTHERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Central of Georgia Ry. Co | 12-20-1932 | 3,508 | 8,234 | 10,762 | 2,528 | 668 | 664 | D 4 | 2,524 | 984 | 1,638 | 654 |
| Florida East Coast Ry. Co | 9- 1-1931 | 3,031 | 10,193 | 12,393 | 2,200 | 849 | 845 | D 4 | 2,196 | 835 | 985 | 150 |
| Georgia & Florida R. R. Co | 10-20-1929 | 652 | 2,902 | 3,458 | 556 | 74 | 54 | D 20 | 536 | 116 | Def. 4 | |
| Mobile & Ohio R. R. Co | 6- 3-1932 | 1,683 | 4,944 | 6,345 | 1,401 | 548 | 533 | D 15 | 1,386 | 297 | 1,317 | 1,020 |
| Norfolk Southern R. R. Co | 7-28-1932 | 869 | 2,709 | 3,479 | 770 | 275 | 280 | 5 | 775 | 94 | 484 | 390 |
| Seaboard Air Line Ry. Co | 12-23-1930 | 9,330 | 35,351 | 41,527 | 6,176 | 5,999 | 7,552 | 1,553 | 7,729 | 1,601 | 3,277 | 1,676 |
| Total | | 19,073 | 64,333 | 77,964 | 13,631 | 8,413 | 9,928 | 1,515 | 15,146 | 3,927 | 7,697 | 3,890 |
| Trustees: None. | | | | | | | | | | | | |
| Total, Southern District | | 19,073 | 64,333 | 77,964 | 13,631 | 8,413 | 9,928 | 1,515 | 15,146 | 3,927 | 7,697 | 3,890 |

[2] Includes contingent charges.

*Class I railroads in receivership or trusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1936—Continued

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges 1936 | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increase | Fixed Charges Paid, 1936 | Total Income, 1936 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| WESTERN DISTRICT | | | | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $3,002 | $31,508 | $34,347 | $2,839 | $316 | $312 | D $4 | $2,835 | $167 | $859 | $692 |
| Trustees: | | | | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | 16,702 | 10,383 | 25,350 | 14,967 | 2,944 | 2,921 | D 23 | 14,944 | 1,758 | 7,070 | 5,312 |
| Chicago, St. Paul, Minneapolis & Omaha Ry | (1) | 2,513 | 8,967 | 11,277 | 2,310 | 781 | 778 | D 3 | 2,307 | 206 | 497 | 291 |
| Chicago Great Western R. R. Co | 3- 1-1935 | 1,939 | 1,899 | 3,381 | 1,482 | 498 | 495 | D 3 | 1,379 | 460 | 2,323 | 1,863 |
| Chicago, Milwaukee, St. Paul & Pacific R. R. Co | 7- 1-1935 | 14,904 | 9,028 | 15,742 | 6,714 | 2,621 | 2,645 | 24 | 6,738 | 8,166 | 10,921 | 2,755 |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | 14,624 | 28,672 | 39,783 | 11,111 | 421 | 410 | D 11 | 11,100 | 3,524 | 1,331 | |
| Chicago, Rock Island & Gulf Ry. Co | 11- 1-1933 | 1,396 | 2,141 | 3,067 | 926 | 115 | 115 | | 926 | 470 | 478 | 8 |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | 5,955 | 7,294 | 12,966 | 5,672 | 1,221 | 1,047 | D 174 | 5,498 | 457 | 1,910 | 1,453 |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | | | | | | | | | | | |
| Minneapolis, St. Paul & Sault Ste. Marie Ry | 12-31-1937 | | | | | | | | | | | |
| Missouri Pacific R. R. Co | 4- 1-1933 | 21,107 | 49,551 | 67,804 | 18,253 | 5,801 | 5,825 | 24 | 18,277 | 2,830 | 13,114 | 10,284 |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | 2,695 | 6,011 | 7,816 | 1,805 | 603 | 603 | | 1,805 | 890 | 456 | |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | 178 | 370 | 494 | 124 | 21 | 21 | | 124 | 54 | Def. 17 | |
| International-Great Northern R. R. Co | 4- 1-1933 | 2,838 | 4,068 | 5,313 | 1,245 | 12 | 10 | D 2 | 1,243 | 1,595 | 191 | |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | 826 | 2,326 | 2,528 | 202 | 74 | 72 | D 2 | 200 | 626 | 742 | 116 |
| San Antonio, Uvalde & Gulf R. R. Co | 5- 1-1933 | 241 | 3,733 | 3,953 | 220 | 92 | 92 | | 220 | 21 | 8 | |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | 12,932 | 40,704 | 52,266 | 11,562 | 2,228 | 2,178 | D 50 | 11,512 | 1,420 | 6,315 | 4,895 |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | 2,892 | 1,631 | 3,141 | 2,110 | 157 | 252 | 95 | 2,205 | 687 | 4,715 | 4,028 |
| St. Louis Southwestern Ry. Co. of Texas | 1- 1-1936 | 610 | 68 | 189 | 121 | 1 | 1 | | 121 | 489 | Def. 1,216 | |
| Spokane International Ry. Co | 8-28-1933 | 273 | 630 | 840 | 210 | | | | 210 | 63 | 110 | 47 |
| Western Pacific R. R. Co | 8- 1-1935 | 3,546 | 5,770 | 8,760 | 2,990 | 874 | 869 | D 5 | 2,985 | 555 | 1,234 | 679 |
| Total | | 106,165 | 182,646 | 264,670 | 82,024 | 18,464 | 18,334 | D 130 | 81,894 | 24,271 | 50,182 | 31,731 |
| Total Western District | | 109,167 | 214,154 | 299,017 | 84,863 | 18,780 | 18,646 | D 134 | 84,729 | 24,438 | 51,041 | 32,423 |
| Grand Total | | 156,502 | 305,238 | 419,955 | 114,717 | 31,754 | 33,729 | 1,975 | 116,692 | 39,810 | 81,111 | 47,759 |

[1] Company has not been formally placed in bankruptcy or receivership but added to above list because of default on its obligations.

D = Decrease.
Def. = Deficit.

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID YEAR ENDED DECEMBER 31, 1935

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1935 [1] | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid, 1935 | Total Income, 1935 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| EASTERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Pittsburg, Shawmut & Northern R. R. Co | 8- 1-1905 | $716 | $247 | $369 | $122 | $10 | $10 | | $122 | $594 | Def. $4 | |
| Wabash Railway Co | 12- 1-1931 | 7,769 | 9,332 | 12,688 | 3,356 | 2,096 | 1,741 | D $355 | 3,001 | 4,768 | 5,595 | $827 |
| Ann Arbor R. R. Co | 12- 4-1931 | 137 | 708 | 839 | 131 | 30 | 28 | D 2 | 129 | 308 | 497 | 189 |
| Total | | 8,922 | 10,287 | 13,896 | 3,609 | 2,136 | 1,779 | D 357 | 3,252 | 5,670 | 6,088 | 1,016 |
| Trustees: | | | | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4- 4-1933 | 279 | 436 | 572 | 136 | 53 | 56 | 3 | 139 | 110 | 527 | 387 |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | 2,262 | 3,264 | 5,293 | 2,029 | 346 | 336 | D 10 | 2,019 | 243 | 804 | 561 |
| Chi., Indianapolis & Louisville Ry. Co | 1- 1-1931 | 1,511 | 2,079 | 3,533 | 1,454 | 78 | 75 | D 3 | 1,451 | 90 | 232 | 142 |
| Erie Railroad Co | 1-18-1938 | | | | | | | | | | | |
| New York, New Haven & Hart. R. R. Co | 10-23-1935 | 17,573 | 1,491 | 3,457 | 1,966 | 2,311 | 2,315 | 4 | 1,970 | 15,603 | 14,726 | |
| New York, Ontario & Western Ry. Co | 5-21-1937 | | | | | | | | | | | |
| New York, Susquehanna & West. R. R. Co | 6- 1-1937 | | | | | | | | | | | |
| Total | | 21,655 | 7,270 | 12,855 | 5,585 | 2,788 | 2,782 | D 6 | 5,579 | 16,076 | 16,289 | 1,090 |
| Total, Eastern District | | 30,577 | 17,557 | 26,751 | 9,194 | 4,924 | 4,561 | D 363 | 8,831 | 21,746 | 22,377 | 2,106 |
| SOUTHERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Central of Georgia Railway Co | 12-20-1932 | 3,539 | 5,528 | 8,234 | 2,706 | 676 | 668 | D 8 | 2,698 | 841 | 1,441 | 600 |
| Florida East Coast Ry. Co | 9- 1-1931 | 3,044 | 7,938 | 10,193 | 2,255 | 849 | 849 | | 2,255 | 789 | Def. 138 | |
| Georgia & Florida Railroad | 10-20-1929 | 644 | 2,419 | 2,902 | 483 | 81 | 74 | D 7 | 476 | 168 | 29 | |
| Mobile & Ohio Railroad Co | 6- 3-1932 | 1,712 | 3,547 | 4,944 | 1,397 | 849 | 548 | D 301 | 1,096 | 616 | 138 | |
| Norfolk Southern Railroad Co | 7-28-1932 | 896 | 1,938 | 2,709 | 771 | 289 | 275 | D 14 | 757 | 139 | 481 | 342 |
| Seaboard Air Line Railway Co | 12-23-1930 | 9,390 | 28,886 | 35,351 | 6,465 | 5,010 | 5,999 | 989 | 7,454 | 1,936 | 1,826 | |
| Total | | 19,225 | 50,256 | 64,333 | 14,077 | 7,754 | 8,413 | 659 | 14,736 | 4,489 | 3,777 | 942 |
| Trustees: None. | | | | | | | | | | | | |
| Total, Southern District | | 19,225 | 50,256 | 64,333 | 14,077 | 7,754 | 8,413 | 659 | 14,736 | 4,489 | 3,777 | 942 |

[1] Includes contingent charges.

*Class I railroads in receivership or trusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID YEAR ENDED DECEMBER 31, 1935—Continued

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1935 | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid, 1935 | Total Income, 1935 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| WESTERN DISTRICT | | | | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $3,026 | $28,695 | $31,508 | $2,813 | 3 [illegible] | $316 | D $4 | $2,809 | $217 | $190 | |
| Trustees: | | | | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | 16,962 | 607 | 10,383 | 9,776 | 2,926 | 2,944 | 18 | 9,794 | 7,168 | 5,952 | |
| Chicago, St. Paul, Minneapolis & Omaha | (2) | 2,543 | 6,658 | 8,967 | 2,309 | 788 | 781 | D 7 | 2,302 | 241 | 246 | $5 |
| Chicago Great Western R. R. Co | 3- 1-1935 | 1,940 | 426 | 1,899 | 1,473 | 515 | 498 | D 17 | 1,456 | 484 | 1,433 | 949 |
| Chicago, Milwaukee, St. Paul & Pacific R. R | 7- 1-1935 | 24,045 | 3,261 | 9,028 | 5,767 | 2,641 | 2,621 | D 20 | 5,747 | 18,298 | 6,122 | |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | 14,623 | 17,888 | 28,672 | 10,784 | 507 | 421 | D 86 | 10,698 | 3,925 | Def. 372 | |
| Chicago, Rock Island & Gulf Ry. Co | 11- 1-1933 | 1,403 | 1,215 | 2,141 | 926 | 115 | 115 | | 926 | 477 | 219 | |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | 5,976 | 2,891 | 7,294 | 4,403 | 1,058 | 1,221 | 163 | 4,566 | 1,410 | 2,720 | 1,310 |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | | | | | | | | | | | |
| Minn., St. Paul & Sault Ste. Marie Ry. Co | 12-31-1937 | | | | | | | | | | | |
| Missouri Pacific R. R. Co | 4- 1-1933 | 21,201 | 31,338 | 49,551 | 18,213 | 5,846 | 5,801 | D 45 | 18,168 | 3,033 | 6,056 | 3,023 |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | 2,664 | 3,932 | 6,011 | 2,079 | 1,784 | 603 | D 1,181 | 898 | 1,766 | 518 | |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | 175 | 247 | 370 | 123 | 21 | 21 | | 123 | 52 | Def. 30 | |
| International-Great Northern R. R. Co | 4- 1-1933 | 2,849 | 2,696 | 4,068 | 1,372 | 13 | 12 | D 1 | 1,371 | 1,478 | 571 | |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | 837 | 1,553 | 2,326 | 773 | 76 | 74 | D 2 | 771 | 66 | 477 | 411 |
| San Antonio, Uvalde & Gulf R. R. Co | 5- 1-1933 | 221 | 3,512 | 3,733 | 221 | 92 | 92 | | 221 | | Def. 311 | |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | 13,050 | 28,275 | 40,704 | 12,429 | 2,278 | 2,228 | D 50 | 12,379 | 671 | 2,622 | 1,951 |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | | | | | | | | | | | |
| St. Louis Southwestern Ry. Co. of Tex | 1- 1-1936 | | | | | | | | | | | |
| Spokane International Ry. Co | 8-28-1933 | 273 | 420 | 630 | 210 | | | | 210 | 63 | Def. 14 | |
| Western Pacific R. R. Co | 8- 1-1935 | 3,487 | 2,870 | 5,770 | 2,990 | 884 | 874 | D 10 | 2,890 | 597 | 1,824 | 1,227 |
| Total, Trustees | | 112,249 | 107,789 | 181,547 | 73,758 | 19,544 | 18,306 | D 1,238 | 72,520 | 39,729 | 28,033 | 8,876 |
| Total, Western District | | 115,275 | 136,484 | 213,055 | 76,571 | 19,864 | 18,622 | D 1,242 | 75,329 | 39,946 | 28,223 | 8,876 |
| Grand total | | 165,077 | 204,297 | 304,139 | 99,842 | 32,542 | 31,596 | D 946 | 98,896 | 66,181 | 54,377 | 11,924 |

[2] Company has not been formally placed in bankruptcy or receivership, but added to above list because of default on its obligations.

D = Decrease.
Def. = Deficit.

## EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1934

[000 omitted]

| | Date of Appointment of Receivers or Trustees | Fixed Charges for 1934 [2] | Interest Matured and unpaid | | | Unmatured Interest Accrued | | | Grand Total of Int. Incr. | Fixed Charges Paid 1934 | Total Income 1934 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| EASTERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Pittsburg, Shawmut & Northern R. R. Co | 8- 1-1905 | $716 | $124 | $247 | $123 | $10 | $10 | ---------- | $123 | $593 | Def. $43 | ---------- |
| Wabash Ry. Co | 12- 1-1931 | 7,737 | 6,329 | 9,332 | 3,003 | 2,176 | 2,096 | D $80 | 2,923 | 4,814 | 4,725 | ---------- |
| Ann Arbor R. R. Co | 12- 4-1931 | 440 | 604 | 708 | 104 | 32 | 30 | D 2 | 102 | 338 | 395 | $57 |
| Total | ---------- | 8,893 | 7,057 | 10,287 | 3,230 | 2,218 | 2,136 | D 82 | 3,148 | 5,745 | 5,077 | 57 |
| Trustees: | | | | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4- 4-1933 | 318 | 218 | 436 | 218 | 52 | 53 | 1 | 219 | 99 | 438 | 339 |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | 2,278 | 1,793 | 3,264 | 1,471 | 356 | 346 | D 10 | 1,461 | 817 | 993 | 176 |
| Chicago, Indianapolis & Louisville Ry. Co | 1- 1-1934 | 1,556 | 630 | 2,079 | 1,449 | 83 | 78 | D 5 | 1,444 | 112 | 146 | 34 |
| Erie Railroad Co | 1-18-1938 | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- |
| New York, New Haven & Hartford R. R. Co | 10-23-1935 | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- |
| New York, Ontario & Western Ry. Co | 5-21-1937 | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- |
| New York, Susquehanna & Western R. R. Co | 6- 1-1937 | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- |
| Total | ---------- | 4,152 | 2,641 | 5,779 | 3,138 | 491 | 477 | D 14 | 3,124 | 1,028 | 1,577 | 549 |
| Total Eastern District | ---------- | 13,045 | 9,698 | 16,066 | 6,368 | 2,709 | 2,613 | D 96 | 6,272 | 6,773 | 6,654 | 606 |
| SOUTHERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Central of Georgia Ry. Co | 12-20-1932 | 3,549 | 2,848 | 5,528 | 2,680 | 677 | 676 | D 1 | 2,679 | 870 | 1,093 | 223 |
| Florida East Coast Ry. Co | 9- 1-1931 | 3,090 | 5,667 | 7,938 | 2,271 | 850 | 849 | D 1 | 2,270 | 820 | 298 | ---------- |
| Georgia & Florida R. R | 10-20-1929 | 625 | 1,925 | 2,419 | 494 | 82 | 81 | D 1 | 493 | 132 | Def. 46 | ---------- |
| Mobile & Ohio R. R. Co | 6- 3-1932 | 1,722 | 2,166 | 3,547 | 1,381 | 773 | 855 | 82 | 1,463 | 259 | 28 | ---------- |
| Norfolk Southern R. R. Co | 7-28-1932 | 984 | 1,168 | 1,938 | 770 | 268 | 289 | 21 | 791 | 193 | 655 | 462 |
| Seaboard Air Line Ry. Co | 12-23-1930 | 10,000 | 21,900 | 28,886 | 6,986 | 3,957 | 5,010 | 1,053 | 8,039 | 1,961 | 2,023 | 62 |
| Total | ---------- | 19,970 | 35,674 | 50,256 | 14,582 | 6,607 | 7,760 | 1,153 | 15,735 | 4,235 | 4,051 | 747 |
| Trustees: None. | | | | | | | | | | | | |
| Total Southern District | ---------- | 19,970 | 35,674 | 50,256 | 14,582 | 6,607 | 7,760 | 1,153 | 15,735 | 4,235 | 4,051 | 747 |

[2] Includes contingent charges.

*Class I railroads in receivership or trusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1934—Continued

[000 omitted]

| | Date of Appointment of Receivers or Trustees | Fixed Charges for 1934 | Interest Matured and unpaid | | | Unmatured Interest Accrued | | | Grand Total of Int. Incr. | Fixed Charges Paid 1934 | Total Income 1934 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| WESTERN DISTRICT | | | | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $3,045 | $25,856 | $28,695 | $2,839 | $324 | $320 | D $4 | $2,835 | $210 | $108 | |
| Trustees: | | | | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | | | | | | | | | | | |
| Chicago, St. Paul, Minneapolis & Omaha | (1) | | | | | | | | | | | |
| Chicago Great Western R. R. Co | 3- 1-1935 | | | | | | | | | | | |
| Chicago, Milwaukee, St. Paul & Pac. R. R. Co | 7- 1-1935 | | | | | | | | | | | |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | 14,258 | 6,626 | 17,888 | 11,262 | 2,705 | 507 | D 2,198 | 9,064 | 5,194 | 2,382 | |
| Chicago, Rock Island & Gulf Ry. Co | 11- 1-1933 | 1,423 | 290 | 1,215 | 925 | 115 | 115 | | 925 | 498 | 59 | |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | | | | | | | | | | | |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | | | | | | | | | | | |
| Mpls., St. Paul & Sault Ste. Marie Ry. Co | 12-31-1937 | | | | | | | | | | | |
| Missouri Pacific R. R. Co | 4- 1-1933 | 21,253 | 13,267 | 31,338 | 18,071 | 5,906 | 5,846 | D 60 | 18,011 | 3,242 | 7,134 | $3,892 |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | 2,663 | 1,973 | 3,932 | 1,959 | 1,260 | 1,784 | 524 | 2,483 | 180 | 596 | 416 |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | 174 | 123 | 247 | 124 | 21 | 21 | | 124 | 50 | Def. 136 | |
| International-Great Northern R. R. Co | 4- 1-1933 | 2,866 | 976 | 2,696 | 1,720 | 15 | 13 | D 2 | 1,718 | 1,148 | 1,455 | 307 |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | 847 | 777 | 1,553 | 776 | 78 | 76 | D 2 | 774 | 73 | 762 | 689 |
| San Antonio, Uvalde & Gulf R. R. Co | 5- 1-1933 | 221 | 3,291 | 3,512 | 221 | 92 | 92 | | 221 | | 39 | 39 |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | 13,203 | 16,112 | 28,275 | 12,163 | 2,337 | 2,278 | D 59 | 12,104 | 1,099 | 3,665 | 2,566 |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | | | | | | | | | | | |
| St. Louis Southwestern Ry. Co. of Texas | 1- 1-1936 | | | | | | | | | | | |
| Spokane International Ry. Co | 8-28-1933 | 272 | 105 | 420 | 315 | 105 | | D 105 | 210 | 62 | Def. 53 | |
| Western Pacific R. R. Co | 8- 1-1935 | | | | | | | | | | | |
| Total | | 57,180 | 43,540 | 91,076 | 47,536 | 12,634 | 10,732 | D 1,902 | 45,634 | 11,546 | 15,903 | 7,909 |
| Total Western District | | 60,225 | 69,396 | 119,771 | 50,375 | 12,958 | 11,052 | D 1,906 | 48,469 | 11,756 | 16,011 | 7,909 |
| Grand total | | 93,240 | 114,768 | 186,093 | 71,325 | 22,274 | 21,425 | D 849 | 70,476 | 22,764 | 26,716 | 9,262 |

[1] Company has not been formally placed in bankruptcy or receivership but added to above list because of default on its obligations.

D = Decrease.
Def. = Deficit.

## EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1933

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1933 [2] | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid, 1933 | Total Income, 1933 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| EASTERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Pittsburg, Shawmut & Northern R. R. Co | 8- 1-1905 | $714 | $8 | $124 | $116 | $10 | $10 | | $116 | $598 | $102 | |
| Wabash Ry. Co | 12- 1-1931 | 7,954 | 3,261 | 6,329 | 3,068 | 2,139 | 2,176 | $37 | 3,105 | 4,849 | 3,270 | |
| Ann Arbor R. R. Co | 12- 4-1931 | 456 | 452 | 604 | 152 | 36 | 32 | D 4 | 148 | 308 | 234 | |
| Total | | 9,124 | 3,721 | 7,057 | 3,336 | 2,185 | 2,218 | 33 | 3,369 | 5,755 | 3,606 | |
| Trustees: | | | | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4- 4-1933 | 343 | 14 | 218 | 204 | 95 | 52 | D 43 | 161 | 182 | 470 | $288 |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | 2,341 | 41 | 1,793 | 1,752 | 359 | 356 | D 3 | 1,749 | 592 | 341 | |
| Chicago, Indianapolis & Louisville Ry. Co | 1- 1-1934 | | | | | | | | | | | |
| Erie Railroad Co | 1-18-1938 | | | | | | | | | | | |
| New York, New Haven & Hartford R. R. Co | 10-23-1935 | | | | | | | | | | | |
| New York, Ontario & Western R. R. Co | 5-21-1937 | | | | | | | | | | | |
| New York, Susquehanna & Western R. R. Co | 6- 1-1937 | | | | | | | | | | | |
| Total | | 2,684 | 55 | 2,011 | 1,956 | 454 | 408 | D 46 | 1,910 | 774 | 811 | 288 |
| Total, Eastern District | | 11,808 | 3,776 | 9,068 | 5,292 | 2,639 | 2,626 | D 13 | 5,279 | 6,529 | 4,417 | 288 |
| SOUTHERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Central of Georgia | 12-20-1932 | 3,589 | 150 | 2,848 | 2,698 | 685 | 677 | D 8 | 2,690 | 899 | 1,067 | 168 |
| Florida East Coast Ry. Co | 9- 1-1931 | 3,109 | 3,421 | 5,667 | 2,246 | 853 | 850 | D 3 | 2,243 | 866 | Def. 60 | |
| Georgia & Florida R. R | 10-20-1929 | 611 | 1,451 | 1,925 | 474 | 83 | 82 | D 1 | 473 | 138 | Def. 4 | |
| Mobile & Ohio R. R. Co | 6- 3-1932 | 1,804 | 738 | 2,166 | 1,428 | 707 | 773 | 66 | 1,494 | 310 | 264 | |
| Norfolk Southern R. R. Co | 7-28-1932 | 994 | 357 | 1,168 | 811 | 307 | 268 | D 39 | 772 | 222 | 484 | 262 |
| Seaboard Air Line Ry. Co | 12-23-1930 | 9,589 | 14,626 | 21,900 | 7,274 | 3,292 | 3,957 | 665 | 7,939 | 1,650 | 3,097 | 1,447 |
| Total | | 19,696 | 20,743 | 35,674 | 14,931 | 5,927 | 6,607 | 680 | 15,611 | 4,085 | 4,848 | 1,877 |
| Trustees: None. | | | | | | | | | | | | |
| Total, Southern District | | 19,696 | 20,743 | 35,674 | 14,931 | 5,927 | 6,607 | 680 | 15,611 | 4,085 | 4,848 | 1,877 |

[2] Includes contingent charges.

*Class I railroads in receivership or trusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1933—Continued

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1933 | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid, 1933 | Total Income, 1933 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| WESTERN DISTRICT | | | | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $3,066 | $23,017 | $25,856 | $2,839 | $331 | $324 | D $7 | $2,832 | $234 | $353 | $119 |
| Trustees: | | | | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | | | | | | | | | | | |
| Chicago, St. Paul, Minneapolis & Omaha | (1) | | | | | | | | | | | |
| Chicago Great Western R. R. Co | 3- 1-1935 | | | | | | | | | | | |
| Chicago, Milwaukee, St. Paul & Pac. Ry. Co | 7- 1-1935 | | | | | | | | | | | |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | 14,640 | 1,582 | 6,626 | 5,044 | 2,727 | 2,705 | D 22 | 5,022 | 9,618 | 4,767 | |
| Chicago, Rock Island & Gulf Ry. Co | 11- 1-1933 | 1,433 | 290 | 290 | | 115 | 115 | | | 1,433 | Def. 169 | |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | | | | | | | | | | | |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | | | | | | | | | | | |
| Mpls., St. Paul & Sault Ste. Marie Ry. Co | 12-31-1937 | | | | | | | | | | | |
| Missouri Pacific R. R. Co | 4- 1-1933 | 21,466 | 514 | 13,267 | 12,753 | 5,900 | 5,906 | 6 | 12,759 | 8,707 | 8,495 | |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | 2,775 | 27 | 1,973 | 1,946 | 853 | 1,260 | 407 | 2,353 | 422 | 1,637 | 1,215 |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | 174 | | 123 | 123 | 21 | 21 | | 123 | 51 | Def. 218 | |
| International-Great Northern R. R. Co | 4- 1-1933 | 2,896 | 839 | 976 | 137 | 17 | 15 | D 2 | 135 | 2,761 | 1,622 | |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | 858 | | 777 | 777 | 80 | 78 | D 2 | 775 | 83 | 698 | 615 |
| San Antonio, Uvalde & Gulf R. R. Co | 5- 1-1933 | 221 | 3,070 | 3,291 | 221 | 92 | 92 | | 221 | | Def. 118 | |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | 13,477 | 3,247 | 16,112 | 12,865 | 2,387 | 2,337 | D 50 | 12,815 | 662 | 4,235 | 3,573 |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | | | | | | | | | | | |
| St. Louis Southwestern Ry. Co. of Texas | 1- 1-1936 | | | | | | | | | | | |
| Spokane International | 8-28-1933 | 271 | 105 | 105 | | | 105 | 105 | 105 | 166 | Def. 92 | |
| Western Pacific R. R. Co | 8- 1-1935 | | | | | | | | | | | |
| Total | | 58,211 | 9,674 | 43,540 | 33,866 | 12,192 | 12,634 | 442 | 34,308 | 23,903 | 20,857 | 5,403 |
| Total, Western District | | 61,277 | 32,691 | 69,396 | 36,705 | 12,523 | 12,958 | 435 | 37,140 | 24,137 | 21,210 | 5,522 |
| Grand total | | 92,781 | 57,210 | 114,138 | 56,928 | 21,089 | 22,191 | 1,102 | 58,030 | 34,751 | 30,475 | 7,687 |

[1] Company has not been formally placed in bankruptcy or receivership but added to above list because of default on its obligations.

D=Decrease.
Def.=Deficit.

## EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1932

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1932 [1] | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid, 1932 | Total Income, 1932 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| EASTERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Pittsburg, Shawmut & Northern R. R. Co | 8- 1-1905 | $126 | $9 | $9 | | $10 | $10 | | | $126 | Def. $34 | |
| Wabash Railway Co | 12- 1-1931 | 7,971 | 501 | 3,261 | $2,760 | 1,798 | 2,139 | $341 | $3,101 | 4,870 | 1,370 | |
| Ann Arbor R. R. Co | 12- 4-1931 | 457 | 322 | 452 | 130 | 28 | 36 | 8 | 138 | 319 | 49 | |
| Total | | 8,554 | 832 | 3,722 | 2,890 | 1,836 | 2,185 | 349 | 3,239 | 5,315 | 1,385 | |
| Trustees: | | | | | | | | | | | | |
| Akron, Canton & Youngstown Ry. Co | 4-16-1933 | | | | | | | | | | | |
| Chicago & Eastern Illinois Ry. Co | 9-16-1933 | | | | | | | | | | | |
| Chicago, Indianapolis & Louis. Ry. Co | 1- 1-1934 | | | | | | | | | | | |
| Erie Railroad Co | 1-18-1938 | | | | | | | | | | | |
| New York, New Haven & Hartford R. R. Co | 10-23-1935 | | | | | | | | | | | |
| New York, Ontario & Western Ry. Co | 5-21-1937 | | | | | | | | | | | |
| New York, Susque. & Western R. R. Co | 6- 1-1937 | | | | | | | | | | | |
| Total | | | | | | | | | | | | |
| Total Eastern District | | 8,554 | 832 | 3,722 | 2,890 | 1,836 | 2,185 | 349 | 3,239 | 5,315 | 1,385 | |
| SOUTHERN DISTRICT | | | | | | | | | | | | |
| Receivers: | | | | | | | | | | | | |
| Central of Georgia Ry. Co | 12-20-1932 | 3,531 | 151 | 150 | D. 1 | 625 | 685 | 60 | 59 | 3,472 | 355 | |
| Florida East Coast Ry. Co | 9- 1-1931 | 3,119 | 1,172 | 3,421 | 2,249 | 853 | 853 | | 2,249 | 870 | Def. 184 | |
| Georgia & Florida R. R | 10-20-1929 | 588 | 997 | 1,451 | 454 | 82 | 83 | 1 | 455 | 133 | Def. 180 | |
| Mobile & Ohio R. R. Co | 6- 3-1932 | 2,230 | 14 | 738 | 724 | 611 | 707 | 96 | 820 | 1,410 | Def. 403 | |
| Norfolk Southern R. R. Co | 7-28-1932 | 835 | 57 | 357 | 300 | 262 | 307 | 45 | 345 | 490 | Def. 107 | |
| Seaboard Air Line Ry. Co | 12-23-1930 | 9,604 | 7,419 | 14,626 | 7,207 | 2,582 | 3,292 | 710 | 7,917 | 1,687 | 712 | |
| Total | | 19,907 | 9,810 | 20,743 | 10,933 | 5,015 | 5,927 | 912 | 11,845 | 8,062 | 193 | |
| Trustees: None. | | | | | | | | | | | | |
| Total Southern District | | 19,907 | 9,810 | 20,743 | 10,933 | 5,015 | 5,927 | 912 | 11,845 | 8,062 | 193 | |

[1] Includes contingent charges.

*Class I railroads in receivership or trusteeship*—Continued

EXCESS OF TOTAL INCOME OVER FIXED CHARGES PAID, YEAR ENDED DECEMBER 31, 1932—Continued

[000 omitted]

| | Date of Appointment of Receiver or Trustee | Fixed Charges for 1932 | Interest Matured and Unpaid | | | Unmatured Interest Accrued | | | Grand Total of Interest Increases | Fixed Charges Paid, 1932 | Total Income, 1932 | Excess of Total Income Over Fixed Charges Paid |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Beginning of Year | End of Year | Increase | Beginning of Year | End of Year | Increase | | | | |
| WESTERN DISTRICT | | | | | | | | | | | | |
| Receivers: Minneapolis & St. Louis R. R. Co | 7-26-1923 | $3,083 | $20,202 | $23,017 | $2,815 | $340 | $331 | D. $9 | $2,806 | $277 | Def. $320 | |
| Trustees: | | | | | | | | | | | | |
| Chicago & North Western Ry. Co | 7- 1-1935 | | | | | | | | | | | |
| Chicago, St. Paul, Minn. & Omaha Ry. Co | [2] | | | | | | | | | | | |
| Chicago Great Western R. R. Co | 3- 1-1935 | | | | | | | | | | | |
| Chi. Milw., St. Paul & Pacific R. R. Co | 7- 1-1935 | | | | | | | | | | | |
| Chicago, Rock Island & Pacific Ry. Co | 6- 8-1933 | | | | | | | | | | | |
| Chicago, Rock Island & Gulf Ry. Co | 11- 1-1933 | | | | | | | | | | | |
| Denver & Rio Grande Western R. R. Co | 11- 1-1935 | | | | | | | | | | | |
| Duluth, South Shore & Atlantic Ry. Co | 1- 1-1937 | | | | | | | | | | | |
| Minneapolis, St. Paul & S. S. Marie Ry | 12-31-1937 | | | | | | | | | | | |
| Missouri Pacific R. R. Co | 4- 1-1933 | | | | | | | | | | | |
| New Orleans, Texas & Mexico Ry. Co | 4- 1-1933 | | | | | | | | | | | |
| Beaumont, Sour Lake & Western Ry. Co | 5- 1-1933 | | | | | | | | | | | |
| International-Great Northern R. R. Co | 4- 1-1933 | | | | | | | | | | | |
| St. Louis, Brownsville & Mexico Ry. Co | 5- 1-1933 | | | | | | | | | | | |
| San Antonio, Uvalde & Gulf R. R. Co | 5- 1-1933 | | | | | | | | | | | |
| St. Louis-San Francisco Ry. Co | 5-17-1933 | | | | | | | | | | | |
| St. Louis Southwestern Ry. Co | 1- 1-1936 | | | | | | | | | | | |
| St. Louis Southwestern Ry. Co. of Texas | 1- 1-1936 | | | | | | | | | | | |
| Spokane International Ry. Co | 8-28-1933 | | | | | | | | | | | |
| Western Pacific R. R. Co | 8- 1-1935 | | | | | | | | | | | |
| Total Trustees | | | | | | | | | | | | |
| Total Western District | | 3,083 | 20,202 | 23,017 | 2,815 | 340 | 331 | D. 9 | 2,806 | 277 | Def. 320 | |
| Grand total | | 31,544 | 30,844 | 47,482 | 16,638 | 7,191 | 8,443 | 1,252 | 17,890 | 13,654 | 1,258 | |

[2] Company has not been formally placed in bankruptcy or receivership but added to above list because of default on its obligations.

D.=Decrease
Def.=Deficit

The following letters are printed at this point in connection with the testimony of Mr. Alfred P. Sloan. See text, p. 3668.

GENERAL MOTORS CORPORATION
Broadway at 57th Street
NEW YORK, N. Y.

JUNE 14, 1939.

Dr. ISADOR LUBIN,
*Commissioner of Labor Statistics, Bureau of Labor Statistics,*
*United States Department of Labor, Washington, D. C.*

DEAR DR. LUBIN: In conformance with our letter of May 23, 1939, we are tabulating below the amount invested by General Motors Corporation in real estate, plants and equipment which is employed in the automotive portion of its business:

*Real estate, plants and equipment*

| | Total [1] | Automotive |
|---|---|---|
| December 31: | | |
| 1938 | $758, 830, 738 | $695, 258, 343 |
| 1937 | 747, 817, 794 | 686, 353, 574 |
| 1936 | 690, 190, 826 | 640, 907, 279 |
| 1935 | 592, 150, 300 | 546, 549, 736 |
| 1934 | 553, 947, 449 | 511, 849, 345 |
| 1933 | 512, 703, 982 | 473, 207, 935 |
| 1932 | 499, 982, 231 | 463, 961, 732 |
| 1931 | 604, 100, 810 | 562, 201, 987 |
| 1930 | 614, 030, 329 | 572, 417, 401 |
| 1929 | 609, 880, 375 | 572, 216, 265 |
| 1928 | 542, 987, 155 | 516, 253, 617 |
| 1927 | 480, 473, 509 | 454, 534, 753 |

[1] Per the balance sheet submitted to the Temporary National Economic Committee for the hearing of May 18, 1939.

We trust that the above information will meet your requirements.
Sincerely yours,

(Signed) ALBERT BRADLEY,
*Vice President.*

AB:MQ

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GENERAL MOTORS CORPORATION
Broadway at 57th Street
NEW YORK, N. Y.

MAY 23, 1939.

Dr. ISADOR LUBIN,
*Commissioner of Labor Statistics, Bureau of Labor Statistics,*
*United States Department of Labor, Washington, D. C.*

DEAR DR. LUBIN: At the May 18, 1939, hearings of the Temporary National Economic Committee you asked Mr. Sloan to supply yearly figures from 1927 showing General Motors Corporation investment in real estate, plant and equipment which is employed in the automotive portion of its business. Our records indicate that the data which you request are not readily available and will require some time to gather from the several sources. Every effort is being made to obtain this data for you as quickly as possible.

We wish to point out that certain of our accessory plants sell their products not only to automotive concerns (General Motors Car Divisions and outside concerns) for original equipment but also to jobbers, dealers, etc. for ultimate sale to the public as replacement parts. For example, the AC Spark Plug Division of General Motors Corporation sells spark plugs to our own car divisions, to outside automotive companies, and to jobbers, etc. Similarly, in the case of New Departure, ball bearings for automobiles are sold to our divisions and to outside motor companies. New Departure also sells ball bearings for nonautomotive purposes. Our records are not kept so that we can readily obtain an allocation of the plant employed for these various purposes, but we will attempt to exclude the nonautomotive investment on the basis of relative cost of manufacture. The amounts

involved for the divisions concerned are not a large percentage of the total, but we wish to check with you to see that the exclusion of nonautomotive plant will meet your requirements.

Sincerely yours,

(Signed) ALBERT BRADLEY,
*Vice President.*

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The following tables and charts are included herewith in connection with the testimony of Mr. Henry S. Dennison on May 22, 1939. See text, p. 3781 et seq.

[Chart based on following statistical data appears on p. 4141]

*Public construction, 1920–1938—Federal and Non-Federal—Part of Work Relief construction included*

[Millions of dollars]

| Year | Public [1] | Federal [2] | Non-Federal [3] | Year | Public [1] | Federal [2] | Non-Federal [3] |
|---|---|---|---|---|---|---|---|
| 1920 | 1,536 | 468 | 1,068 | 1930 | 2,827 | 357 | 2,470 |
| 1921 | 1,753 | 397 | 1,356 | 1931 | 2,615 | 460 | 2,155 |
| 1922 | 1,786 | 306 | 1,480 | 1932 | 1,881 | 499 | 1,382 |
| 1923 | 1,645 | 223 | 1,422 | 1933 | 1,346 | 606 | 740 |
| 1924 | 1,904 | 231 | 1,673 | 1934 | 1,804 | 978 | 826 |
| 1925 | 2,142 | 217 | 1,925 | 1935 | 1,851 | 1,106 | 746 |
| 1926 | 2,138 | 193 | 1,945 | 1936 | 2,671 | 1,858 | 813 |
| 1927 | 2,395 | 196 | 2,199 | 1937 | 2,524 | 1,632 | 892 |
| 1928 | 2,499 | 232 | 2,267 | 1938 | 2,903 | 1,883 | 1,020 |
| 1929 | 2,458 | 271 | 2,187 | | | | |

[1] See footnote 1 of table entitled "Public Construction and Maintenance in the United States, 1920–1938."
[2] Department of Commerce, *ibid.*, includes one-half of work relief construction, and construction of naval vessels, see Table A; also includes Federal aid and Federal Emergency Administration of Public Works' grants.
[3] Department of Commerce— *ibid.*, and *Survey of Current Business, ibid.*

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[Chart based on following statistical data appears on p. 4142]

*Public construction and maintenance, 1920–1938—Federal and Non-Federal—Part of Work Relief construction included*

[Millions of dollars]

| Year | Public [1] | Federal [2] | Non-Federal [3] | Year | Public [1] | Federal [2] | Non-Federal [3] |
|---|---|---|---|---|---|---|---|
| 1920 | 2,044 | 543 | 1,501 | 1930 | 3,733 | 445 | 3,288 |
| 1921 | 2,325 | 477 | 1,848 | 1931 | 3,424 | 540 | 2,884 |
| 1922 | 2,358 | 365 | 1,993 | 1932 | 2,539 | 576 | 1,963 |
| 1923 | 2,228 | 281 | 1,947 | 1933 | 1,918 | 693 | 1,225 |
| 1924 | 2,555 | 291 | 2,264 | 1934 | 2,474 | 1,095 | 1,379 |
| 1925 | 2,819 | 283 | 2,536 | 1935 | 2,548 | 1,214 | 1,335 |
| 1926 | 2,862 | 270 | 2,592 | 1936 | 3,496 | 2,029 | 1,467 |
| 1927 | 3,189 | 282 | 2,907 | 1937 | 3,329 | 1,778 | 1,551 |
| 1928 | 3,330 | 316 | 3,014 | 1938 | 3,711 | 2,036 | 1,675 |
| 1929 | 3,309 | 357 | 2,952 | | | | |

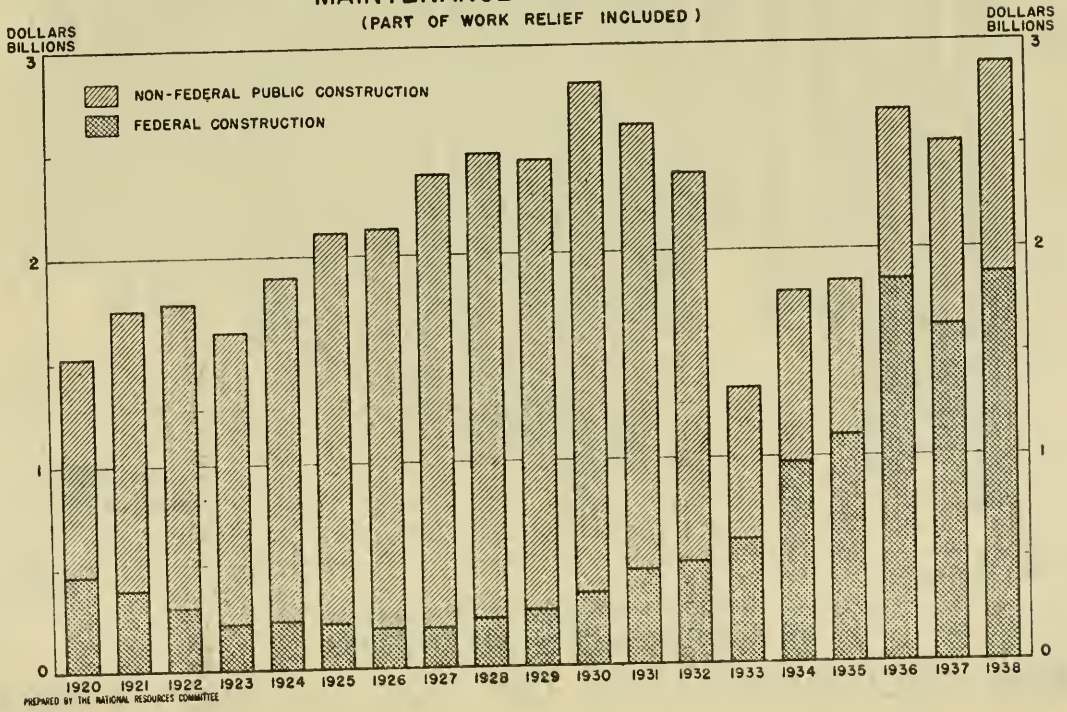
[1] See footnote 1 of table entitled "Public Construction and Maintenance in the United States, 1920–1938."
[2] Department of Commerce, *ibid.*, includes one-half of work relief construction, and construction and maintenance of naval vessels, see Table A; also includes Federal aid and Federal Emergency Administration of Public Works' grants.
[3] Department of Commerce, *ibid.*, and *Survey of Current Business, ibid.*

# PUBLIC CONSTRUCTION 1920 - 1938

## FEDERAL AND NON-FEDERAL

## MAINTENANCE NOT INCLUDED

(PART OF WORK RELIEF INCLUDED)




PUBLIC CONSTRUCTION AND MAINTENANCE 1920–1938
FEDERAL AND NON-FEDERAL
(PART OF WORK RELIEF CONSTRUCTION INCLUDED)
DOLLARS BILLIONS
NON-FEDERAL
FEDERAL
0
1
2
3
4
1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938
PREPARED BY THE NATIONAL RESOURCES COMMITTEE

*Work relief construction and maintenance, 1933–1938*

[Millions of dollars]

EXPENDITURES BY AGENCIES

| Year | Total work relief expenditures on construction | Civil Works Administration | Federal Emergency Relief Administration | Works Progress Administration | Emergency Conservation Work | Total not reported by F. W. Dodge Corporation | Work Relief expenditures on non-residential construction reported by F. W. Dodge Corporation |
|---|---|---|---|---|---|---|---|
| 1933 | 114 | 114 | | | | 114 | |
| 1934 | 578 | 352 | 226 | | | 578 | |
| 1935 | 431 | | 247 | 136 | 23 | 406 | 25 |
| 1936 | 1,290 | | | 1,112 | 18 | 1,130 | 160 |
| 1937 | 895 | | | | | 775 | 120 |
| 1938 | 1,225 | | | | | 1,075 | 150 |

EXPENDITURES FOR HIGHWAYS AND OTHER CONSTRUCTION PROJECTS

| Year | Total | | | Highways | | All Other | |
|---|---|---|---|---|---|---|---|
| | Total work relief expenditures on construction | New | Maintenance | New | Maintenance [1] | New | Maintenance [2] |
| 1933 | 114 | 97 | 17 | 57 | 7 | 40 | 10 |
| 1934 | 578 | 491 | 87 | 300 | 35 | 191 | 52 |
| 1935 | 431 | 370 | 61 | 211 | 23 | 159 | 38 |
| 1936 | 1,290 | 1,120 | 170 | 592 | 67 | 527 | 104 |
| 1937 | 895 | 779 | 116 | 403 | 46 | 376 | 70 |
| 1938 | 1,225 | 1,064 | 161 | 559 | 64 | 505 | 97 |

WORK RELIEF EXPENDITURES ALLOCATED TO CONSTRUCTION AND MAINTENANCE [3]

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1933 | 57 | 49 | 8 | 29 | 3 | 20 | 5 |
| 1934 | 289 | 245 | 44 | 150 | 18 | 95 | 26 |
| 1935 | 215 | 185 | 30 | 105 | 11 | 80 | 19 |
| 1936 | 645 | 560 | 85 | 296 | 33 | 263 | 52 |
| 1937 | 448 | 390 | 58 | 202 | 23 | 188 | 35 |
| 1938 | 612 | 532 | 80 | 279 | 32 | 253 | 48 |

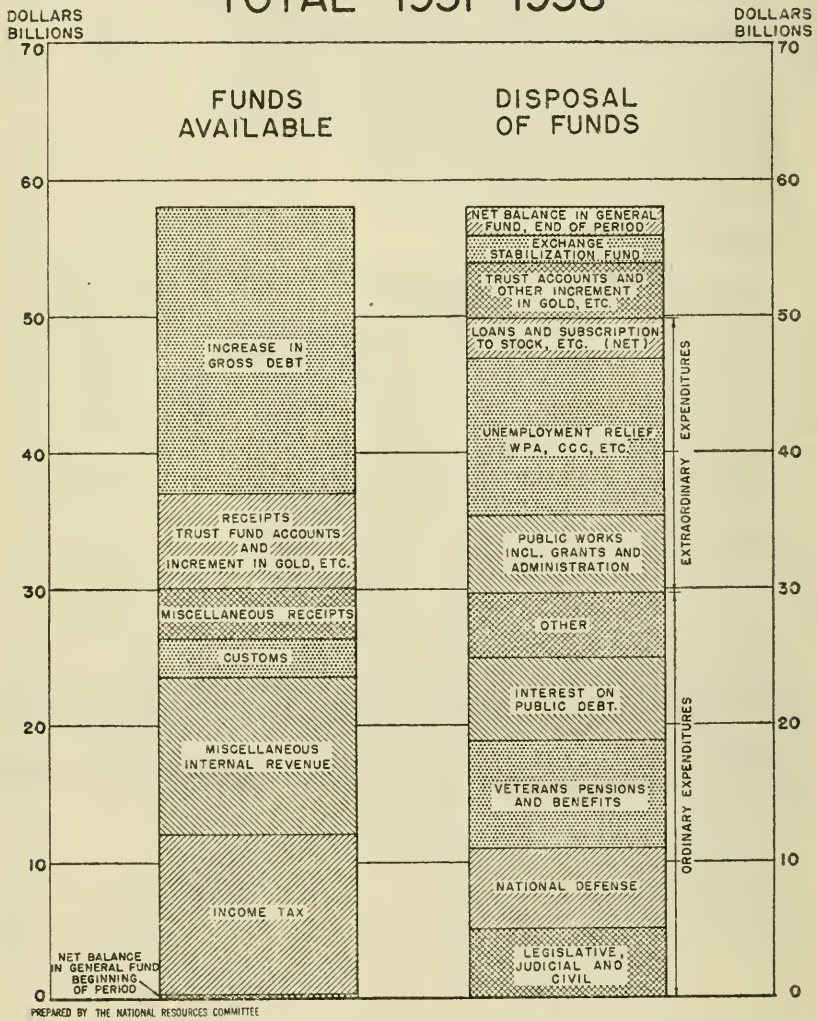
[1] Maintenance for highways computed at 40 percent of maintenance for all construction.

[2] In case of relief expenditures on construction for Works Progress Administration, maintenance expenditures are not separated. These were computed at 15 percent of total construction and maintenance (same as estimate used in the case of Civil Works Administration and Federal Emergency Relief Administration).

[3] 50 percent of work relief expenditures on construction and maintenance has been allocated.

Source: U. S. Department of Commerce, *Construction Activity in the United States, 1915–1937*. Data for 1937 and 1938 from "Construction Trends in the United States, 1937 and 1938," *Survey of Current Business*, page 11.

# FUNDS AVAILABLE AND THE DISPOSAL OF SUCH FUNDS BY THE FEDERAL GOVERNMENT TOTAL 1931-1938




PREPARED BY THE NATIONAL RESOURCES COMMITTEE

[Chart based on following statistical data appears on p. 4144]

*Funds available and disposal of such funds by the Federal Government, 1931–1938*

(Millions of dollars)

FUNDS AVAILABLE

| | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | Total, 1931–1938 |
|---|---|---|---|---|---|---|---|---|---|
| RECEIPTS | | | | | | | | | |
| General and Special Accounts: | | | | | | | | | |
| Income tax | 1,860 | 1,057 | 746 | 818 | 1,099 | 1,427 | 2,158 | 2,635 | 11,800 |
| Miscellaneous Internal Revenue | 570 | 504 | 858 | 1,470 | 1,657 | 2,009 | 2,181 | 2,280 | 11,529 |
| Customs | 377 | 328 | 251 | 313 | 343 | 387 | 486 | 359 | 2,844 |
| Miscellaneous receipts | 383 | 117 | 225 | 515 | 701 | 293 | 469 | 968 | 3,671 |
| Total | 3,190 | 2,006 | 2,080 | 3,116 | 3,800 | 4,116 | 5,294 | 6,242 | 29,844 |
| Trust Fund Accounts, Increments on Gold, etc. | 128 | 178 | 180 | 2,995 | 393 | 475 | 904 | 1,727 | 6,980 |
| Total | 3,318 | 2,184 | 2,260 | 6,111 | 4,193 | 4,591 | 6,198 | 7,969 | 36,824 |
| Increase in Gross Debt | 616 | 2,686 | 3,052 | 4,514 | 1,648 | 5,077 | 2,647 | 740 | 20,980 |
| Net balance in general fund, beginning of fiscal year or period | 337 | 471 | 417 | 862 | 2,582 | 1,841 | 2,682 | 2,553 | 335 |
| Total funds available during period | 4,271 | 5,341 | 5,729 | 11,487 | 8,423 | 11,509 | 11,527 | 11,262 | 58,139 |

DISPOSAL OF FUNDS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EXPENDITURES | | | | | | | | | |
| General and Special Accounts: | | | | | | | | | |
| Ordinary: | | | | | | | | | |
| Legislative, judicial, and civil | 647 | 756 | 584 | 458 | 562 | 675 | 689 | 712 | 5,083 |
| National defense | 667 | 664 | 633 | 494 | 663 | 880 | 895 | 980 | 5,876 |
| Veterans' pensions and benefits | 943 | 973 | 849 | 554 | 604 | 2,348 | 1,128 | 572 | 7,971 |
| Interest on public debt | 612 | 599 | 689 | 757 | 821 | 749 | 866 | 926 | 6,019 |
| Other | 119 | 171 | 96 | 388 | 807 | 656 | 1,087 | 1,455 | 4,779 |
| Total, ordinary expenditures | 2,988 | 3,163 | 2,851 | 2,651 | 3,457 | 5,308 | 4,665 | 4,645 | 29,728 |
| Extraordinary expenditures: | | | | | | | | | |
| Public works, including grants and administration | 421 | 499 | 472 | 625 | 766 | 914 | 1,102 | 880 | 5,679 |
| Unemployment relief | | | 360 | 1,853 | 2,363 | 2,372 | 2,527 | 1,996 | 11,471 |
| Loans, subscription to stock, etc., net | 263 | 873 | 181 | 882 | 434 | 71 | 150 | 104 | 2,948 |
| Total extraordinary expenditures | 684 | 1,372 | 1,013 | 3,360 | 3,553 | 3,357 | 3,779 | 2,980 | 20,098 |
| Total expenditures, exclusive of debt retirement | 3,672 | 4,535 | 3,864 | 6,011 | 7,010 | 8,665 | 8,444 | 7,625 | 49,826 |
| Exchange stabilization fund | | | | 2,000 | | | | | 2,000 |
| Trust accounts and other increment on gold, etc. (excluding national bank note retirements) | 128 | 389 | 1,003 | 894 | −428 | 162 | 530 | 1,421 | 4,099 |
| Total expenditures, general, special, and trust accounts, etc. | 3,800 | 4,924 | 4,867 | 8,905 | 6,582 | 8,827 | 8,973 | 9,046 | 55,924 |
| Net balance in general fund, end of fiscal year or period | 471 | 417 | 862 | 2,582 | 1,841 | 2,682 | 2,553 | 2,216 | 2,216 |
| Total funds disposed | 4,271 | 5,341 | 5,729 | 11,487 | 8,423 | 11,509 | 11,527 | 11,263 | 58,139 |

Source: Based on Treasury statements (revised) as given in the Report of the Secretary of the Treasury, June 30, 1938.

*Expenditures for construction and maintenance of naval vessels in the United States 1920–1938*

[Millions of dollars]

| Year | Total | Construction of new vessels | Repairs, replacements and maintenance | Year | Total | Construction of new vessels | Repairs, replacements and maintenance |
|---|---|---|---|---|---|---|---|
| 1920 | 241 | 202 | 39 | 1930 | 85 | 50 | 35 |
| 1921 | 247 | 203 | 44 | 1931 | 71 | 38 | 33 |
| 1922 | 153 | 129 | 24 | 1932 | 73 | 39 | 34 |
| 1923 | 65 | 47 | 18 | 1933 | 85 | 48 | 37 |
| 1924 | 60 | 42 | 18 | 1934 | 94 | 67 | 27 |
| 1925 | 56 | 34 | 22 | 1935 | 159 | 132 | 27 |
| 1926 | 57 | 25 | 32 | 1936 | 213 | 183 | 30 |
| 1927 | 63 | 27 | 36 | 1937 | 212 | 182 | 30 |
| 1928 | 72 | 37 | 35 | 1938 | 219 | 191 | 28 |
| 1929 | 82 | 47 | 35 | | | | |

Source: Special tabulation by Navy Department, Bureau of Supplies and Accounts.

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[Chart based on following statistical data appears on p. 4147]

*Increase in Federal debt and in selected Federal properties, calendar years 1931–1938*

[Millions of dollars]

| | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | Total, 1931–1938 |
|---|---|---|---|---|---|---|---|---|---|
| Federal Properties: | | | | | | | | | |
| Public works: | | | | | | | | | |
| Highways (excluding maintenance)[1] | 172 | 177 | 224 | 403 | 361 | 584 | 491 | 654 | 3,066 |
| Naval vessels (excluding repairs and maintenance)[2] | 38 | 39 | 48 | 67 | 132 | 183 | 182 | 191 | 880 |
| All other construction (excluding maintenance)[3] | 250 | 283 | 334 | 508 | 613 | 1,091 | 959 | 1,038 | 5,076 |
| Amortization (25-year life)[4] | ---- | 10 | 21 | 34 | 54 | 79 | 123 | 162 | 483 |
| Net construction | 460 | 489 | 585 | 944 | 1,052 | 1,779 | 1,509 | 1,721 | 8,539 |
| Change in proprietary interest of Federal Government[5] | 440 | 1,330 | 1,100 | 882 | 111 | −550 | 95 | −102 | 3,306 |
| Change in general fund balance[6] | 168 | 80 | 471 | 2,734 | 306 | −301 | 1,066 | 122 | 4,646 |
| Estimated value of selected Federal properties | 1,068 | 1,899 | 2,156 | 4,560 | 1,469 | 928 | 2,670 | 1,741 | 16,491 |
| Increase in gross Federal debt[7] | 1,800 | 2,979 | 3,010 | 4,664 | 2,078 | 3,848 | 2,881 | 2,141 | 23,401 |

[1] Includes Federal aid to highways and 50 percent of work relief highway construction. (See Department of Commerce, *Construction Activity in the United States, 1915–1937*, page 88 and Table B.)

[2] See table entitled "Expenditures for Construction and Maintenance of Naval Vessels in the United States, 1920–1938."

[3] The difference between Federal construction shown in table entitled "Public Construction, 1920–1938, Federal," and Non-Federal and highways and naval vessels shown above.

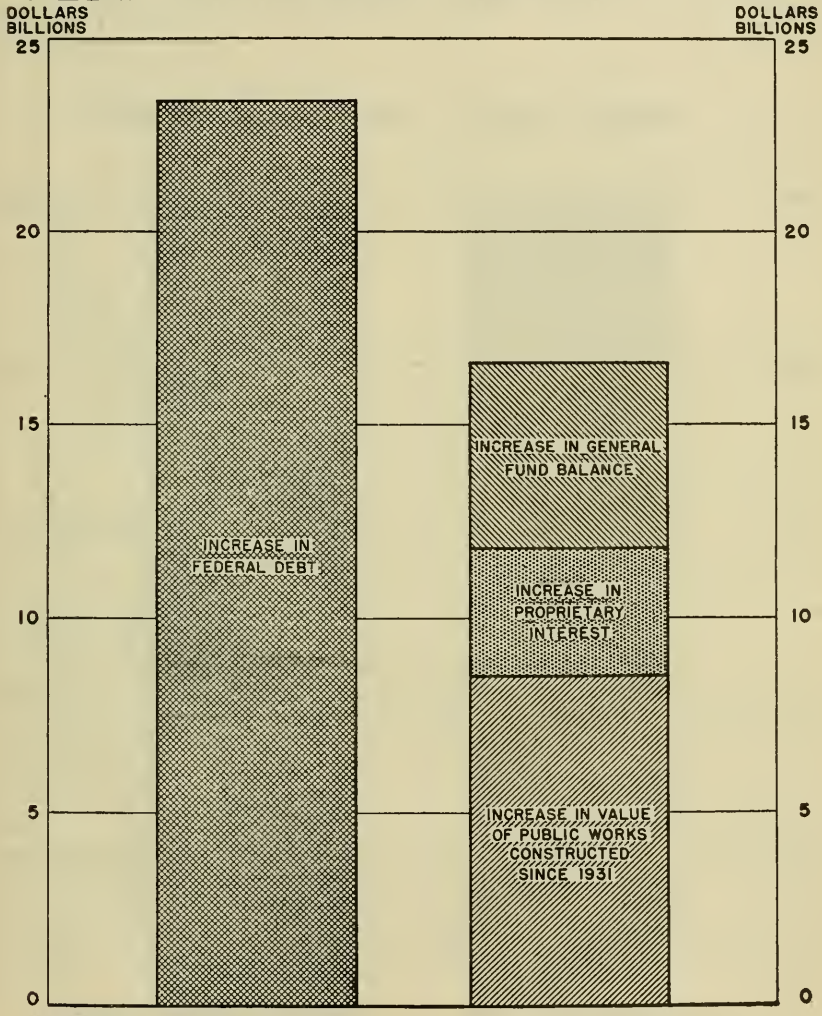
[4] Calculated on basis of constant 4 percent per annum.

[5] 1931, 1932, and 1933 estimated by graphical method from data shown in *Report of the Secretary of the Treasury*, June 30, 1938; for the other years, based on *Daily Statement of the Treasury* as of the end of November.

[6] Change from December 31 of preceding year to December 31 of current year; includes Exchange Stabilization Fund of 2 billion dollars for the years 1934–1937 and 2,012 million dollars in 1938—see Reports of the Secretary of the Treasury.

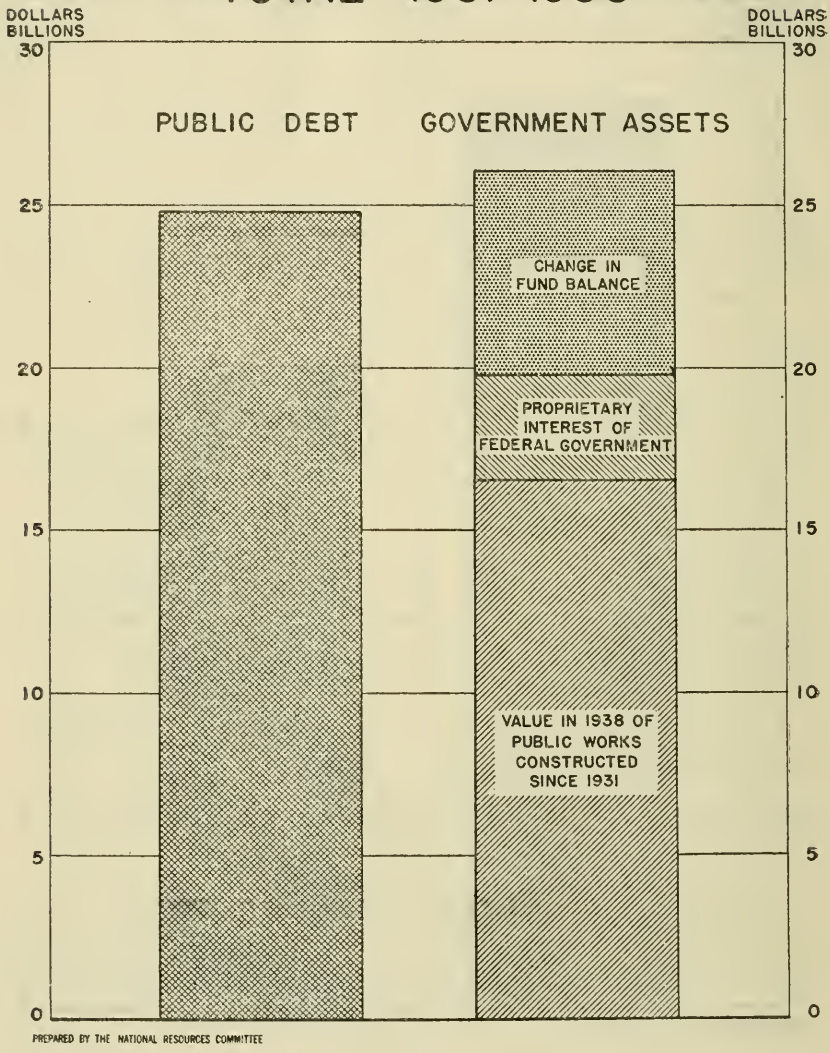
[7] Change in gross Federal debt from December 31 of preceding year to December 31 of current year—see *Reports of the Secretary of the Treasury*.

# INCREASE IN FEDERAL DEBT AND IN VALUE OF SELECTED FEDERAL PROPERTIES 1931–1938




PREPARED BY THE NATIONAL RESOURCES COMMITTEE

# INCREASE IN PUBLIC DEBT AND IN GOVERNMENT ASSETS TOTAL 1931–1938



[Chart based on following statistical data appears on p. 4148]

*Increase in public debt and in Government assets (Federal, State, and local), calendar years 1931–1938*

[Millions of dollars]

| | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | Total 1931–1938 |
|---|---|---|---|---|---|---|---|---|---|
| Government Assets: | | | | | | | | | |
| Public Works: | | | | | | | | | |
| Highways (excluding maintenance)[1] | 1,323 | 916 | 704 | 971 | 727 | 1,172 | 1,013 | [2] 1,195 | 8,021 |
| Naval vessels (excluding repairs and maintenance)[3] | 38 | 39 | 48 | 67 | 132 | 183 | 182 | 191 | 880 |
| Other public construction[4] | 1,254 | 926 | 594 | 766 | 992 | 1,316 | 1,329 | 1,517 | 8,694 |
| Amortization (25-year life)[5] | | 50 | 87 | 111 | 142 | 182 | 235 | 288 | 1,095 |
| Net construction | 2,615 | 1,831 | 1,259 | 1,693 | 1,709 | 2,489 | 2,289 | 2,615 | 16,500 |
| Change in proprietary interest of Federal Government[6] | 440 | 1,330 | 1,100 | 882 | 111 | −550 | 95 | −102 | 3,306 |
| Change in general fund balance: | | | | | | | | | |
| Federal Government[7] | 168 | 80 | 471 | 2,734 | 306 | −301 | 1,066 | 122 | 4,646 |
| State and local governments[8] | 699 | −396 | −260 | 1,198 | −18 | 187 | −11 | 297 | 1,696 |
| Total increase in general fund balance | 867 | −316 | 211 | 3,932 | 288 | −114 | 1,055 | 419 | 6,342 |
| Estimated value of Government assets | 3,922 | 2,845 | 2,570 | 6,507 | 2,108 | 1,825 | 3,439 | 2,932 | 26,148 |
| Increase in public debt (Federal, state and local)[9] | 2,983 | 3,569 | 2,739 | 4,373 | 2,253 | 3,920 | 2,846 | 2,142 | 24,825 |

[1] Includes expenditures for highway construction shown in table entitled "What Was Built by the Government, 1920–1937," plus 50 percent of work relief highway construction shown in Table B.

[2] Estimated on basis of ratio of new highway construction in 1937 to total—all public construction; applied to 1938 total—all public construction.

[3] See Table A.

[4] Total public construction (including 50 percent of work relief construction). (See table entitled "Public Construction, 1920–1938"), less highways and naval vessels.

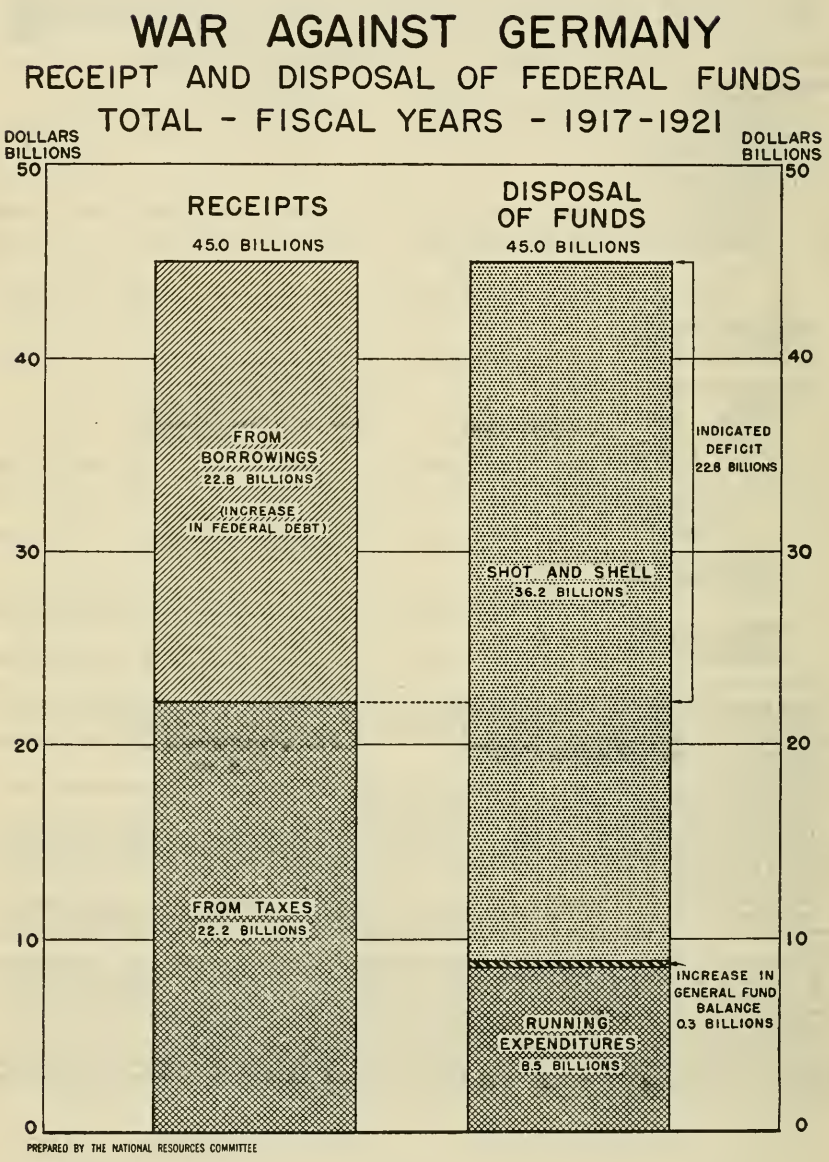
[5] Calculated on the basis of a constant 4 percent amortization rate.

[6] Data represent change from December 31 of preceding year to December 31 of current year and are based on figures given in the *Report of the Secretary of the Treasury*, June 30, 1938, page 536; the figures for 1931–1938 estimated by graphical interpolation; for the other years data are based on *Daily Statements of the Treasury* as of end of November.

[7] *Annual Reports of the Secretary of the Treasury.* Represent change from December 31 of preceding year to December 31 of current year. For the years 1934–1937, 2 billion dollars in Exchange Stabilization Fund were included, while for 1938 the amount included was 2,012 million dollars. (See Treasury Bulletin, March 1939.)

[8] Data represent change from December 31 of preceding year to December 31 of current year of demand and time deposits of all state and local governments in all banks in the United States; the figures are slightly underestimated since no cash in tills is included. See *Annual Reports of the Comptroller of the Currency.* The December 31, 1930–1935 figures were estimated by averaging two June 30 figures; the figures for December 31, 1936–1938 were obtained from worksheets of the United States Treasury.

[9] Gross debt from *Reports of the Secretary of the Treasury.* The state and local debt consists of securities on which interest is wholly tax-exempt, less securities held in sinking fund; the December 31 figures are obtained by averaging two June 30 figures. The annual change is the difference between the figure for December 31 of preceding year and that for December 31 of current year.


WAR AGAINST GERMANY
RECEIPT AND DISPOSAL OF FEDERAL FUNDS
TOTAL - FISCAL YEARS - 1917-1921
DOLLARS BILLIONS
DOLLARS BILLIONS
50
40
30
20
10
0
RECEIPTS
45.0 BILLIONS
DISPOSAL OF FUNDS
45.0 BILLIONS
FROM BORROWINGS 22.8 BILLIONS
(INCREASE IN FEDERAL DEBT)
FROM TAXES 22.2 BILLIONS
SHOT AND SHELL 36.2 BILLIONS
RUNNING EXPENDITURES 8.5 BILLIONS
INDICATED DEFICIT 22.8 BILLIONS
INCREASE IN GENERAL FUND BALANCE 0.3 BILLIONS
PREPARED BY THE NATIONAL RESOURCES COMMITTEE

The following table and chart are included at this point in connection with testimony on page 3857.

[Chart based on following statistical data appears on p. 4150]

*Receipts and expenditures of Federal funds, fiscal years 1917–1921*

[Millions of dollars]

| Fiscal year | Total receipts | Total ordinary receipts [1] | Net annual increase in gross debt [1] | Total expenditures plus increase in general fund balance | Annual change in general fund balance of U. S. Treasury [1] | Total expenditures | Expenditures chargeable to the war [2] | Running expenses of the Federal Government [3] |
|---|---|---|---|---|---|---|---|---|
| 1917 | 2,875 | 1,124 | 1,751 | 2,862 | 884 | 1,978 | ---------- | ---------- |
| 1918 | 12,933 | 3,665 | 9,268 | 13,262 | 565 | 12,697 | ---------- | ---------- |
| 1919 | 18,390 | 5,152 | 13,238 | 18,062 | −459 | 18,521 | ---------- | ---------- |
| 1920 | 5,511 | 6,695 | −1,184 | 5,537 | −866 | 6,403 | ---------- | ---------- |
| 1921 | 5,303 | 3,625 | −322 | 5,289 | 173 | 5,116 | ---------- | ---------- |
| Total 1917–21 | 45,012 | 22,261 | 22,751 | 45,012 | 297 | 44,715 | 36,239 | 8,476 |

*Assets held June 30, 1921, as a result of war expenditures* [1]

| Description of assets: | *Value of assets* [1] |
|---|---|
| Federal control of transportation systems | 110 |
| U. S. Shipping Board | 280 |
| War Finance Corporation | 565 |
| Surplus war supplies and surplus property | 294 |
| Due from German Government account of army of occupation | 158 |
| Miscellaneous assets | 128 |
| Total, excluding foreign obligations | 1,535 |
| Foreign obligations | 7,470 |
| Total assets | 9,005 |

*Summary statement of war cost, 1917–1921* [1]

| | |
|---|---|
| Total gross expenditures | 40,022 |
| Cash receipts | 3,783 |
| Total assets [4] | 9,005 |
| Net war cost | 27,234 |

[1] *Annual Reports of the Secretary of the Treasury.*
[2] *Annual Report of the Secretary of the Treasury, 1929*, page 527.
[3] Total expenditures minus expenditures chargeable to the War.
[4] Only a small part of the value of these assets was recovered in subsequent years.

# INDEX





124491—40—pt. 9——43

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