CAUTION: For the convenience of the Press only, release on delivery, probably about 10 A.M., E.S.T., Tuesday, May 16, 1939.

SUMMARY STATEMENT OF THE TESTIMONY OF DR. ALVIN H. HANSEN, PROFESSOR OF POLITICAL ECONOMY, HARVARD UNIVERSITY, BEFORE THE TEMPORARY NATIONAL ECONOMIC COMMITTEE AT THE HEARINGS ON SAVINGS AND INVESTMENT, MAY 16, 1939.

The analysis of economic trends in our rapidly changing world is fraught with danger and difficulty. Economic conclusions cannot be subjected to strict mathematical proof. In the area in which we are dealing any conclusions tentatively advanced must stand or fall according as they do or do not appear realistic and sensible to reasonable persons.

The inquiry undertaken by the Temporary National Economic Committee relates not only to the functioning of the competitive price system but also to the flow of savings and to the flow of new investment into plant expansion.

The expenditure stream which is mainly responsible for the rise and fall of the national income is the outlay made on plant and equipment expansion. When large expenditures are made on private and public construction, on manufacturing, mining, railroad and utility plant and 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 1923-1929, inclusive, the total volume of capital outlays amounted to the vast sum of $128 billions. The average annual expenditure was $18 billions. It required this volume of capital outlays to lift the national income to $77 billions per annum. No high level of employment and income has ever been achieved without a large outlay on plant equipment and new construction.

Now the income received will necessarily either be spent on consumption goods or it will be saved. What is spent on consumption goods at once goes into the market and creates income. What is saved may or may not flow into the commodity market and create new income. Savings are good for society if they find active use in the purchase of plant and equipment. They may do great damage if the saver does not so use them and is unable to find a borrower who will purchase plant equipment or other capital goods. In the event that savings are thus hoarded, the income stream dries up. Unemployment is caused in the capital goods industries and spreads to other areas.

A boom is a period in which there is a burst of outlays on expansion of plant and equipment. Special causes have from time to time brought an end to booms, but apart from these we may say that every boom eventually dies a "natural death". By this I mean that the available means of expansion in productive equipment have been 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. When this point is reached, the boom dies a natural death. This is essentially what happened in 1929. All over the world (England excepted) there had been going on for some years a gigantic constructional boom. The spurt could not 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 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. It takes time before new developments can again accumulate and the discovery or new techniques, new resources, new industries, and the growth of population can again set the stage for another boom.

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The dynamic part of the expenditure stream from which income flows is the outlay on plant, equipment and new construction. Money expended on capital outlays is high-powered money for the reason that consumption expenditures rise and fall mainly as employment rises and falls in the capital goods industries. Thus every dollar of capital outlays has a multiplier or leverage effect on the total national income. And similarly, every dollar of savings or depreciation allowances not expended on capital outlays drives the income down with a magnified effect. A society geared to a high peak load of capital goods production will have 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. But if such an economy fails to find adequate investment outlets for its new savings and its depreciation allowances, it will lose its dynamic quality and become a depressed economy with a large volume of chronic unemployment. A high-savings economy can escape this situation only through the continuous development of new outlets for capital expenditures on plant and equipment or 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 and the growth of population.

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 has been of a magnitude and duration which has eclipsed all others, not excepting the deep and prolonged depressions of the seventies and nineties. It is an economic phenomenon which 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 capital outlays 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. 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. 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".

In the nineteenth century the western world underwent a profound transformation from a primitive, rural economy into a highly industrialized, machine economy. One overwhelmingly important fact characterized this century. It was an epoch of rapid expansion -- expansion into new territory and expansion of population. This one central fact 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 been temporarily over-built, the damage was short-lived. Expansion and growth soon made good the error. Business men could look far into the future with gigantic plans, with anticipatory capital outlays based on the expectation of growth and expansion. Enormous capital outlays were conditioned not merely by technological developments, but also by population growth and the opening of new territory. J. R. Hicks, the British economist, says "one cannot repress the thought that perhaps the whole industrial revolution of the last two hundred years has been nothing else but a large secular boom, largely induced by the unparalleled rise in population."

The upward surge of population began with relatively small accretions which rapidly swelled into a flood. But this advancing tide has come to a sudden halt. With the prospect of actual contraction confronting us, we are already in the midst of a drastic decline in population growth. In the decade of the twenties our population increased by 16 million. In the current decade we are adding only half this number to our population.

In this era of rapid territorial and population expansion the United States was a capital-poor country. Not only were we able to find ready outlet for our own savings, but 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 war postponed the difficulties of transition. The post-war decade, for reasons which I shall briefly explore, offered temporarily adequate outlets for our savings. Thus for a time enjoying high prosperity, we were unaware of the underlying trends and forces converging to produce the Great Depression.

The prosperity of the twenties rested heavily on five main props which are no longer present. First, industrial and residential building, which reached in this decade an all-time high. It 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 reached an all-time high of 17 million. In the second place, there was a high volume of public construction financed heavily by state and local borrowing. State and local debt increased at the rate of one billion dollars 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 foreign loans and investments, which in part provided foreign countries with the 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 credit which reached the quite extraordinary level of 11 billion dollars by 1929. Fifth, there was the prodigious 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 a wholly new network of hard-surfaced roads.

The automobile industry reached maturity in the twenties. It has ceased to grow, as did the railroads in the nineties. It is the *cessation of growth* which is disastrous. For when industries have ceased to grow, there is no further need for plant expansion. When giant industries have spent their force and ceased to grow, new industries of equal magnitude are necessary. And it may take a long time before these develop. No one can say at this moment what great new developments the future may have in store, but the history of the last two hundred years affords no basis for the assumption that the rise of new industries proceeds at a steady pace.

It might be inferred from what I have said that in the recovery 1935-37 no substantial capital outlays were made. This is not the case. From the best available evidence it appears that in 1936-37 capital outlays on mining and manufacturing plant and equipment were on a scale quite comparable with those of 1927-1929. The most important single gap was residential construction, and next commercial construction. Capital outlays on railroads and

public utilities, however, also lagged behind the 1927-29 level. The large capital outlays in industrial plant and equipment in 1936-37 may appear surprising, if one accepts my analysis 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 new capital requirements which the rising national income stimulated. But new developments were not available on a sufficiently large scale to sustain for long these large capital outlays or to push them on to sufficiently high levels, in view of the lag in residential building and in other areas, to give us a full and sustained recovery.

Our problem in a nutshell is to get an adequate volume of capital goods *expansion*. This is imperative in order to utilize the flow of savings. The stream of savings flowing into life insurance companies, savings banks, and into the mortgage and capital markets, must find, (if we are to avoid chronic unemployment) an outlet in *expansion* and *new* construction. Replacements and renewals of plant and equipment, no matter on how large a scale, will not suffice. Renewals and replacements are financed from depreciation and depletion allowances. Replacements and renewals cannot absorb or use up the stream of *new* savings. And if the flow of savings is not used up in *expansion*, we get chronic unemployment. It is just here that we come up against one of our difficulties. Depreciation allowances, available for renewals and replacements of plant and equipment are so large in a highly developed industrial society that it is perfectly possible to make prodigious progress in the introduction of new techniques without the use of any new savings for expansion of plant and equipment. We can modernize and improve our capital equipment merely by spending our depreciation allowances on renewals and replacements. Yet we must have expansion in order to use our savings and prevent chronic unemployment.

This, then, is the all-important question: How are we going to get an adequate volume of investment *expansion*?

For myself I do not think there is any panacea. There is no simple solution. We are confronted with a complicated problem and we must attack it from many angles.

In the first place, we must stimulate private expansion of productive equipment and new construction. We should foster and support, partly by public funds, the development of new products and industries. Secondly, in the case of the railroads, the retirement of equipment in excess of additions in the past eight years has created a considerable backlog in the event that railroad traffic should increase. A railroad equipment company could be set up, financed on a self liquidating basis by government funds, empowered to purchase new railroad equipment, and lease it to the railroads as and when needed. This might break the railroad financial log jam and open the way for an expansion of railroad capital expenditures.

Thirdly, with respect to residential construction, the time has come when we could well reduce the guaranteed rate of interest allowed under the Federal Housing Administration. Considering the current surplus of funds seeking investment, the present rate is abnormally high, and is certainly a deterrent to private building. Fourthly, private investment expansion can be stimulated by a thorough reform of our tax structure.

These are direct ways in which private investment in productive equipment and new construction can be encouraged. In addition, considering the absence of many of the factors formerly making for rapid expansion, it is my opinion that we can overcome the current chronic unemployment problem only by supplementing private investment with public investment on a considerable scale. Without this, it is not likely that we shall absorb our full flow of savings, put them to active use, and raise our national income above the current chronic stagnation level. Let me remind you that, even in the decade of the twenties, public investment by state and local bodies in schools, roads and other public improvements absorbed a billion dollars of savings per year.

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 budget and mistakenly counted ourselves poorer by reason of the public debt incurred to finance these projects. Many worthwhile self-liquidating public projects are currently available. 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. Rural electrification projects, rural re-habilitation loans, and farm tenancy loans can be put on a self-liquidating basis.

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 economic and social significance but which are non-self-liquidating. They may nevertheless be extremely necessary and useful and even highly productive in an indirect manner. Expenditures on the conservation and development of energy and natural resources may indirectly raise the national income very much more than the annual amortization and interest charges incurred. In so far as this is the case, such public investments are in fact profitable from the long-run point of view. Public investment in human resources can be equally productive. Outlays for hospitalization, public health, polution abatement and sewerage projects, public education and public low-cost housing may be no less productive than outlays on natural resources.

The volume of permissible borrowing on self-liquidating projects must certainly have some relation to taxable income and taxable capacity. But it is not necessary to have the money in hand from tax revenues for the entire capital outlay in the year in which it is made. Properly speaking the budget is in fact balanced if the taxable income and taxable capacity are ample to cover the amortization and interest charges incurred by any given capital outlay. When an individual finances a part of the cost of his house by borrowing, we do not say that his budget is out of balance provided his income is amply adequate to cover amortization and interest charges. Precisely the same is true of worthwhile public investments in non-self-liquidating public works.

If it is deemed desirable, a considerable part of public investment could quite well be paid from taxation provided the taxes were so levied as to fall on savings and not on consumption. By this procedure the savings stream is forced directly into investment instead of being tapped voluntarily through the borrowing process. In this connection it is of interest to note that in England it appears that savings are being siphoned in very considerable volume through the tax structure into expenditures on social services. Estimates of national income and savings by the Royal Committee on National Debt and Taxation, Professor Pigou, Dr. Bowley, and Colin Clark indicate that the proportion of income which is saved in England in the post-war decade and in recent years is very much smaller than before the war. In general these studies indicate that about 12 or 13 percent of the national income was saved before the war, while only 8 percent was saved in 1924 and 7 percent in recent years. These estimates disclose a remarkable shift in the ratio of savings to income. Stated otherwise, England has become a high-consumption economy. And it is largely by reason of this shift that England has been able to adjust herself more successfully than we to the conditions of a less rapidly expanding society -- a society requiring a smaller flow of savings than that needed in the nineteenth century. It should be noted, however, that in addition to this process of directly tapping the savings stream, the local authorities in England are making important public investments financed by borrowing. The gross debt of local authorities in England and Wales increased from 800 million pounds in 1922 to 1,400 million pounds in 1934. New municipal issues have absorbed a considerable part of the flow of savings in England in recent years.

In contrast with the British situation, our tax structure weighs less heavily on savings in the so-called middle income brackets. Moreover, we have in recent years been collecting large sums for Social Security but have paid out very little in 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 chronic unemployment.

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