MEASURING THE NATION'S WEALTH

HEARINGS

BEFORE THE

SUBCOMMITTEE ON ECONOMIC STATISTICS

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CONTENTS

CHRONOLOGICAL LIST OF WITNESSES

ADDITIONAL MATERIAL

APPENDIX

MEASURING THE NATION'S WEALTH

TUESDAY, JUNE 1, 1965

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMIC STATISTICS
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:05 a.m., in room 1202, New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senators Proxmire and Douglas; Representative Curtis.

Also present: James W. Knowles, executive director; Gerald A. Pollack, staff economist; Donald A. Webster, minority staff economist; and Hamilton D. Gewehr, administrative clerk.

Senator PROXMIRE. The subcommittee will come to order.

The hearings today will be based upon a report on "Measuring the Nation's Wealth," made by the Wealth Inventory Planning Study established by the George Washington University under a grant from the Ford Foundation. The investigation was made by a staff of experts under the direction of Dr. John W. Kendrick, an outstanding American economist and statistician, and was aided by an advisory committee under the sponsorship of Dr. Daniel Creamer, of the National Industrial Conference Board. A large number of experts in and out of Government took part in the study. The text was published by the Joint Economic Committee in December of 1964 for consideration by the subcommittee.

The hearings will open this morning with an explanation of the study by the director of research, Dr. Kendrick, and the chairman of the advisory committee, Dr. Creamer. This will be followed by a panel of experts from outside Government who are specially acquainted with the problems in this field, including representatives of the Government agencies primarily concerned.

The U.S. Government, as I understand it, took a regular census of wealth from 1850 to 1920 or 1922, and it was discontinued in part because of doubts about its accuracy. There has been a great deal of interest expressed in the usefulness of this kind of study. We are happy to hear this morning, as I say, Dr. Kendrick and Dr. Creamer.

STATEMENT OF JOHN W. KENDRICK, PROFESSOR, DEPARTMENT OF ECONOMICS, UNIVERSITY OF CONNECTICUT; ACCOMPANIED BY JOEL POPKIN AND DAVID HYAMS

Senator PROXMIRE. Dr. Kendrick, you might identify the other gentlemen who are at the table with you.

Dr. KENDRICK. I have taken the liberty of bringing the two full-time staff members who worked with me on the Wealth Inventory

Planning Study: Mr. Joel Popkin, to my immediate right; and David J. Hyams, on the far right.

Gentlemen, it is an honor and a privilege to appear before this subcommittee of the Joint Economic Committee, which has won a position of high regard among the economists and statisticians of this country for its constructive work over the past two decades in the realm of economic intelligence, analysis, and policy.

I am told it is in order for me to begin with a few words about my own background. In addition to teaching at the University of Connecticut, I am a member of the senior research staff of the National Bureau of Economic Research, in New York, and a consultant to the Bureau of the Budget and the National Science Foundation. From 1956 through mid-1964 I was associate professor, then professor, of economics at the George Washington University in Washington. It was during the last 17 months of that association—from February 1963 through June 1964—that I served as staff director of the Wealth Inventory Planning Study, whose report "Measuring the Nation's Wealth," you are considering today (hereinafter to be referred to as the "report").

If Senator Talmadge had been present this morning, I would have mentioned that my first position was an instructor of economics in the University of Georgia in the fair city of Athens, Ga., back in 1940–41. Then I came to Government and have been stuck here either as a full-time Government employee or as a consultant to one or more Government agencies ever since.

GENESIS OF THE WEALTH STUDY

The wealth study grew out of the concern of an increasing number of economists over the inadequacy of the basic data and derived estimates of the wealth of the United States. As I shall elaborate below, balance sheet and wealth estimates—by sector, type of wealth, and region—will substantially increase our ability to analyze economic movements and relationships, and thus our ability to predict and to devise economic policies to promote the security and well-being of our people. As John P. Lewis, then a member of the President's Council of Economic Advisers, and now AID mission chief in India, said in the report (p. 170):[1]

> The development of a comprehensive, reasonably detailed, set of national wealth or national balance sheet estimates is long overdue in the evolution of American social accounting.
>
> Just as a matter of completeness or symmetry, it is strange in a country with as sophisticated and elaborate economic statistics as the United States not to have a set of stock data that are comparable to our highly developed national income system.
>
> But the main case for comprehensive, adequately detailed asset data, of course, lies in the concrete uses that can be made of them. Such uses are many and at least as plentiful for private analysts as public.

Mr. Lewis might have noted that in 1955 the Japanese Government inaugurated a comprehensive quinquennial survey of wealth, by sector, as a basis for balance sheet estimates to accompany their national income accounts. Between 1959 and 1962, the Soviet Union conducted

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[1] "Measuring the Nation's Wealth," Joint Economic Committee, U.S. Congress, December 1964.

a comprehensive census of its reproducible, tangible wealth. I might mention that several dozen other countries have been experimenting with the collection of wealth data in greater or lesser detail. Yet we in the United States, the wealthiest country in he world, have only fragmentary data and crude estimates of our national wealth. We know very little about how the national wealth is distributed—by types of wealth, by industries, by ownership, and by State or other regional division. As a result of inadequate data, economists know less than they should and could about the relationships of real wealth to productivity advance and economic growth; of asset holdings to demand; of debt to assets; of financial assets to real assets; of income to assets holdings (i.e., rates of return); of property tax payments to assets holdings; and the many other interesting stock-flow relationships, knowledge of which is so important in guiding the economy effectively.

In 1957, the National Accounts Review Committee, set up by the National Bureau of Economic Research at the request of the Office of Statistical Standards in the Budget Bureau, wrote in its report (quoted in "Measuring the Nation's Wealth," pp. xvi-xvii):

> The committee feels that as a part of a long-range program of improvement and expansion of our system of national accounts the development of comprehensive and consistent national and sectoral balance sheets on a regular periodic (if possible annual) basis should be taken in hand as soon as feasible.
>
> The committee, however, recognizes that there are still so many unresolved conceptual problems in this field and that the estimates are in many cases necessarily still so rough that the next step should not be the immediate attempt by a Government agency to develop balance sheets or even national wealth statements. It seems to the committee that this is the field for a thorough study, exploratory and experimental in part, possibly by one of our private research institutions. Such a study would probably require an intensive effort over several years. It might be expected to result in, first, the development of superior methods of estimation and in improved actual estimates for many types of assets and liabilities; and, secondly, in a concrete plan for the collection of data in fields where only a Government agency is likely to secure the necessary information. After such a preparatory study the time will probably have arrived for one of the statistical agencies of the Federal Government to take over the preparation of periodic national and sectoral balance sheets as a regular feature, integrated, of course, with other parts of the national accounts.

In 1961, the Census Advisory Committee of the American Economic Association renewed the appeal for a study to explore the problems and possibilities of a wealth inventory.

The next year, several other economists and I drew up a proposal for an exploratory wealth study to submit to the Ford Foundation through the George Washington University. Because of the complex conceptual and statistical problems involved, and the necessity for long-range planning, it was our contention that a privately financed study was appropriate, since the statistical agencies seldom have the free funds to finance this type of exploratory and long-range planning project. It was our intention, however, to conduct the study in close consultation with the interested governmental agencies. The Ford Foundation approved the proposal, and in early 1963 made a grant of $90,000 to the George Washington University. I was selected as staff director, and although I could think of more exciting ways of spending a year and a half, I consented to serve in this capacity due to my strong conviction of the need for much better wealth data in the United States in order significantly to improve our understanding of the economy and thus our ability to guide it to even better advantage in the path of relatively stable, yet vigorous, expansion.

THE WEALTH STUDY PROGRAM AND REPORT

The budget of the wealth study permitted only a small full-time staff of 3 persons, who are seated before you this morning, but we were aided greatly by the voluntary work of almost 200 persons who gave generously of their time to the project. First, we had an advisory committee of 14 outstanding economists, which met 4 times during the project. The committee advised with the staff, reviewed preliminary drafts of the report, and then issued its own statement recommending expansion and improvement in collection of data and the preparation of wealth estimates within the Federal statistical establishment. The chairman of the advisory committee, Dr. Daniel Creamer, is speaking for the committee today.

Further, we commissioned nine persons to prepare background papers on technical aspects of wealth estimation, and eight others, representing major user groups, to prepare statements on actual and potential uses of wealth estimates. These materials comprise the 10 parts of appendix I of the report, following the basic staff report at the beginning.

Finally, we set up 14 working groups, composed of an average of about one dozen persons each, to canvass the major sectors of the economy with respect to available wealth data, gaps in the data, and to make recommendations as to additional wealth data required and the reporting vehicles that might be used to collect the data. The 14 working group reports comprise appendix II of the report.

Drawing heavily on the background papers and sector reports, the staff prepared its own summary-type report (report, pp. 3–161) setting forth in systematic form the conceptual framework and technical requirements for collection of wealth data and preparation of balance sheets and wealth estimates as an integral part of the Nation's economic accounts; it reviewed other work in this field, including that of Japan and the U.S.S.R. as well as previous efforts in the United States; it summarized the working group reports as to data gaps and requirements in the various sectors, and recommended reporting vehicles; and, finally, presented summary "guidelines" for collection of wealth data and preparation of estimates in the final chapter 12.

Since the "Measuring the Nation's Wealth" is available as a joint committee print, and since it already contains summaries in chapters 1 and 12, I believe that my statement can be relatively brief.

Incidentally, I would like to express my appreciation and that of many research people in economics for the printing of this report by the Joint Economic Committee, since it is not only a proposal and a plan, but it is a basic reference document. It will be of great use to scholars in this field, since it contains references to all of the basic sources of wealth information and some evaluation of this information.

I should like first to cover the highlights of the report with respect to conceptual and statistical requirements for improved wealth estimates; and, second, to make my own suggestions for actions that would seem appropriate in the near future to begin the implementation of the recommendations of the wealth study group, assuming that is the pleasure of the Government. Although there has not been much time for it in the main paper, during the questioning I should be glad to return to a consideration of the important uses of better wealth data, upon which the justification of spending taxpayer money for this project ultimately rests.

BASIC GUIDELINES

Scope.—The wealth study was primarily concerned with tangible, "nonhuman" wealth, which comprises land and structures, durable equipment, and inventories, plus our net foreign assets. This is the real wealth of the Nation which remains when sector balance sheets are consolidated, and domestic financial assets and liabilities cancel out. Wealth as defined is the net worth of the Nation, and is the sum of the net worth in the various sectors of the economy, and as I pointed out, the financial items cancel, and we see that our net worth is the real productive wealth of land, equipment, structures, inventories.

We were also concerned with the financial items of sector balance sheets, but secondarily so since the conceptual and statistical problems are less serious in the area of financial assets and liabilities than they are in the area of real, tangible assets. But the study was much concerned with the relation of tangible wealth to balance sheets and the relations of both to the national income and product accounts.

The economic accounting framework.—The wealth study group believed that wealth estimates should be prepared in the framework of the national economic accounts. Reproducible tangible wealth is the cumulative total of net investment in the saving-investment account. If the saving-investment account were deconsolidated by sector, this would provide the link to wealth estimates by sector.

I might remind you in our national income accounts now we just have one saving-investment subaccount showing the total for the Nation. We do not have it spelled out by consumers, by business, by Government, or by subsectors.

A further deconsolidation of the saving-investment of the business sector by industry would provide the key to industry wealth estimates. The group stressed that for purposes of production analysis, the tangible wealth data should be collected from industries of establishments; for purposes of financial analysis, broader industry sectors comprising companies would suffice.

The reason for this, of course, is that the establishments are more closely identified with industries than the large multiestablishment companies which somewhat arbitrarily have to be put into one industry or another so that technical relationships between capital and production can better be seen if you are working with establishment data. But as for financial data, you more or less have to work with company information, since financing is done through the headquarters office.

In sector accounts, saving and investment are not equal as in the national accounts; the balancing item is "net financial investment." This item is the difference between the net change in assets and the net change in liabilities of a sector, and provides the link to

49-065—65——2

flow of funds, or "financing" accounts. These financing accounts together with the saving-investment account (both comprising the "capital accounts") provide the link to balance sheets, which show the cumulative totals of net tangible investment and net changes in financial assets, net changes in financial liabilities, and the difference, or net change in net worth.

These identities hold only if the balance sheets are expressed in terms of original costs. But since the national income and product flows are in terms of current market values as well as because of the more direct meaningfulness of such values, the study group recommended that the wealth estimates and balance sheets be expressed in terms of present values (and for some other purposes, that wealth estimates should be deflated to constant prices consistently with the deflated gross national product).

I might mention that this requirement of converting original costs to current market values poses some of the most difficult problems in collecting data for wealth estimates and in making the estimates themselves, because companies carry the data in terms of what they cost, and this may have been counted 10, 20, or 30 years ago. So to have to revalue these to what they would be worth today is a major statistical problem. But obviously the original cost information is not too meaningful because you have scrambled prices of various periods in the past which makes temporal comparisons or comparisons between industries not consistent.

When current values are used in balance sheets, a revaluation account is needed in addition to the capital account in order to explain balance sheet changes—since the current value of assets, liabilities, and net worth change not only because of new net investment, tangible and financial, but also because of changes in the value of existing assets.

The current income accounts and the national saving-investment account have been developed by the Office of Business Economics in the Commerce Department, while the Division of Research and Statistics of the Federal Reserve Board developed sector saving-investment and flow-of-funds accounts, and accompanying partial balance sheets (containing financial items, but not tangible assets and net worth). The wealth study advisory committee did not specify this but, personally, I believe it would be most desirable if the technicians of the Office of Business Economics and Federal Reserve Board could agree on a consistent set of national economic accounts, by sector, during the course of planning for the wealth inventory specifically. If this proves impossible, work can still go forward with the Office of Business Economics taking the lead in advising on data collections to expand and improve estimates of tangible wealth by sector and industry (of establishments), and the Federal Reserve Board taking the lead in planning data collection required to improve and refine the flow-of-funds and balance-sheet estimates. It is to be hoped for the sake of users that even if complete integration is not achieved between the real and financial systems, the two systems will be brought closer together so that they may be reconciled simply instead of by the complex procedure now required. I would also urge that if integration is not achieved, the Office of Business Economics deconsolidate its savings-investment account and expand the sector accounts to show the chief financial flows, and the related balance sheets, again with main emphasis on the tangibles, but presenting the financial assets and liabilities by major types. This would provide the broad background against which the detailed financial estimates of the Federal Reserve Board could be studied with greater profit.

If the wealth inventory is to be taken in the context of the economic accounts, the detail with respect to sector and industry, classes of items, and types of transaction, should be consistent and collapsible into the categories of the accounts. As part of the preparatory work, the structure of the accounts (both income and product, and flow-of-funds) should be reviewed carefully and revised as necessary to accommodate the wealth estimates.

I would like to stress the point that our national income accounts are far from a finished, rigid set of accounts. They have changed gradually over the years, in the direction of improvement I think, but there is still much improvement that can be made in the national income accounts. In the process of developing wealth estimates, I believe it would be a good time for rather substantial further improvements in the direction particularly of deconsolidating the saving and investment account, and possibly reclassifying some of the expenditures of households and of Government from current to capital expenditures. As you know, there is no capital account for Government even in the national accounts.

The relation of the inventory to continuing estimates.—The wealth study recognized that continuing balance sheet and wealth estimates related to the national economic accounts are the ultimate objective. But to have an adequate basis for regular estimates, a comprehensive national inventory will be necessary. The inventory would be tied into the existing economic censuses conducted periodically by the Census Bureau, and basic data collection systems of the regulatory and other agencies, supplemented as required. Annual (or more frequent) extensions of the benchmark estimates would be made by means of Census Bureau annual surveys and other sample surveys either of asset items themselves or, in the case of depreciable assets, of new investment which make possible the extension of benchmark estimates by cummulating net investment (the perpetual inventory method). In line with the procedure followed in the national income and product accounts, new wealth benchmarks should be established at least once a decade, following the initial inventory, since extrapolations based on sample surveys and indirect estimating methodology can develop cumulative biases unless they are rectified periodically by benchmark statistics.

This is what is done in our national product estimates now. They are rectified every 5 or 10 years when we get our basic censuses. In the meantime they are extrapolated by the sample information.

Methodology of the wealth inventories.—The basic plan—this onetime inventory to begin with which will be a benchmark for the continuing annual estimates—is to include asset inquiries in the economic censuses and other economic reporting systems covering the various industry groups for the year 1970 or the closest year to 1970 covered by the censuses. This means that the inventory would not be taken as of 1 year but would be spread over 5 years, which is the cycle now used by the Census Bureau. The asset inquiries would be similar to those used in the 1963 Annual Survey of Manufacturers (establishment form MA–100) and the 1963 census (company summary form NC–K1), but in somewhat greater detail. Book-value data would be requested separately for the major classes of assets; land, structures, equipment, and inventories by such major categories of each as can be obtained across the board (such as, office equipment, transportation equipment, and production machinery and equipment).

As has been done previously in the census of manufactures, rental payments by major classes of assets should be requested, together with rental received and the associated book values of assets. This would make possible an adjustment of wealth estimates from an ownership to a use basis, which is becoming increasingly important with the trend toward equipment leases, as Mr. Popkin has documented in a paper for the American Statistical Association last December. The tax advantage of leasing promotes this type of arrangement.

To supplement the broad asset schedule which goes to all respondents, it will be highly desirable to obtain considerable detail on types of capital goods, by year or period of acquisition, from a small sample of respondents. This would be a rather detailed listing of their capital equipment by type, the numbers, and the original cost by year or period of acquisition. No only will this information be of interest in its own right by revealing the age composition of the various types of real wealth (useful in appraising capital goods markets), but it is important as a basis for revaluation of book values to current, market values. For this purpose, the estimating agency must apply appropriate price indexes and depreciation rates to the original cost of the various categories of fixed capital goods remaining in stock as of the inventory date.

The Census Bureau and other statistical agencies involved will need to consult with industry representatives, carry out pilot studies, and pretest tentative questionnaires before final determination of the degree of detail which is feasible, both in the general asset inquiry and the more detailed same investigation.

Tying the asset schedules into existing censuses and associated inquiries means that the data will be available in as much industry and regional detail as is built into the reporting systems. The study recommended publication of three-digit industry detail and data for States and major standard metropolitan statistical areas for the benchmark period.

Reporting systems.—The advisory committee recommendation that the wealth inventory be tied into existing reporting systems should promote efficiency and economy in the conduct of this inventory. Agriculture, mining, manufacturing, trade, selected services, and State and local governments are covered by the Census Bureau's economic censuses on a quinquennial basis, while population and housing are covered by the decennial census.

I should say that these censuses cover assets, if at all, in a varying degree of detail at the present time, and some of these areas are not covered at all with respect to assets, and perhaps the biggest gap here is the State and local governments. The Census Bureau does get information now for recent years on the investment by State and local governments, but there is nothing on the value of the property owned by these governments. I understand that the underlying records may be rather poor in some cities, localities, and so forth.

The Federal Government assets are canvassed by the General Services Administration, the Treasury Department and the Departments of Agriculture, Interior, and Defense. I am sure all of you are acquainted with the summary of Federal Government assets contained in the annual report now put out by the House Committee on Government Operations. The bulk of the regulated industries, transportation, communications, public utilities, and finance, are covered by the various regulatory agencies.

The study recommends resumption of a census of construction, including asset schedules; expansion of the census of business to cover service areas now uncovered; and exploration of the possibilities of using Internal Revenue Service tax returns for coverage of the important real estate industry, as well as for data in other industries where it can be gotten from IRS returns not necessitating census collections. Household wealth is partially covered by the census of housing; it is recommended that the other categories be covered by the Federal Reserve Board, in collaboration with the Census Bureau, using samples drawn from the 1970 Census of Housing.

I might mention, the Federal Reserve Board in 1963 carried out a survey of the financial characteristics of families, and I think it was the most comprehensive one so far. But that covered mainly the financial assets of households, with rather little on tangible assets.

Financial claims, domestic and foreign, of corporations and partnerships, would be covered by the IRS either through a special balance sheet for the beginning and end of the year 1970, or through additions to existing forms already containing balance sheets for corporations and partnerships, and these could be expanded for the census year.

More detailed recommendations regarding agencies and reporting programs are contained in appendix II of the report, and summarized in the latter part of chapter 12.

Supplementary information.—The basic data provided by the censuses and other reports will have to be processed into estimates compatible with the national economic accounts, primarily by the Office of Business Economics. While some of the primary data may be reported in terms of current market values (as in the case of residential real estate) since most homeowners know roughly what their houses would sell for, from keeping up with their neighbors' transactions, yet much of it can be reported by respondents only in terms of book values (acquisition costs), as noted above. In order to revalue in terms of market values, or depreciated replacement cost, as a proxy for market, the estimating agency will need additional data on asset prices, depreciation rates, and lengths-of-life of depreciable assets. The report suggests that mortality experience can be obtained in connection with the small-sample detail on types of assets by period of acquisition, or by special surveys such as those conducted by the IRS and Treasury Department as background for the 1962 revision of depreciation guidelines.

Incidentally, this will be one useful fallout of the wealth inventory—additional data would be obtained on lengths of life that would be of use in later revisions of depreciation guidelines by the Treasury Department.

The price-data collection programs of the Bureau of Labor Statistics need expansion in the field of capital goods and real property.

Special studies are also needed of secondhand prices of selected types of durable goods at successive ages, to establish patterns of depreciation to supplement studies now done by the Machinery & Allied Products Institute and other groups.

PROCEDURAL SUGGESTIONS

I do not think that these are all spelled out in just this way in the report, but represent more my own thinking at this stage.

Given the decentralized nature of the Federal statistical system, and the several agencies that would be involved in wealth data collection and estimation, it is clear that leadership and a degree of coordination must be provided by the Office of Statistical Standards in the Bureau of the Budget. The Office will inevitably be involved in reviewing the requests for additional appropriations made by the agencies that will be participating in the wealth program.

It is my view that an early start in expanding its estimates of tangible wealth should be undertaken by the Office of Business Economics. Expanded work in this area could yield fruitful results, even with the present inadequate data base, as proved by the work of Raymond Goldsmith, Simon Kuznets, Daniel Creamer, and other private investigators. Just as important, the day-to-day work of processing existing data will help to clarify and specify the additional data, both benchmark and survey, required to improve the coverage, detail, and accuracy of wealth estimates. With its accumulating experience in this field, the OBE could lend strong support to the OSS (Office of Statistical Standards) in providing guidance to the data-collection agencies in planning and coordinating their asset inquiries.

I think there is no way to learn how to do a job like starting to do it and if the OBE starts getting in there making detailed, comprehensive wealth estimates, it will learn just what more is needed. We have tried to outline it based on this ad hoc study, but the specifics can be developed better in OBE as they attempt further work in this area.

It is also to be hoped that the Federal Reserve Board will strengthen its work on flow-of-funds and balance sheet estimates, and participate in planning improvements in the IRS balance sheet data collection, and the collection of data on household assets, both tangible and financial, in conjunction with the Census Bureau.

Finally, if we are to have the wealth inventories well underway by 1970, the coming fiscal year is none too soon for the Census Bureau and other data-collection agencies involved to begin pilot studies and consultations looking toward design of the general and detailed asset inquiries, and estimating the additional budget requirements.

I was just talking to Mr. Dessel of the Census Bureau before we began, and he mentioned that there is now an item in the Census Bureau budget for new items, and presumably some of that money could be used in more detailed planning work during the coming fiscal year, although I do not think there is a specifically earmarked fund at this time. This also goes for the Bureau of Labor Statistics with regard to expansion of its price-data collection work in the asset area.

CONCLUSION

There is no question in my mind but what the relatively small sums spent on economic statistics by the Federal Government have been repaid many times over by the improved economic performance which their contribution to economic understanding and policy has made possible. I believe most economists would agree that improvement in wealth statistics would make possible further significant advances in our understanding of economic processes, and thus in our ability to achieve desired goals.

I am pleased to see that Senator Douglas has come in. I feel quite sure that he would agree that improvement of our estimates of capital would make possible much greater understanding of the production process, of the process of expanding production, since the capital factor is a major one in production, and yet we are very little ahead of where we were at the time he began his studies back in the 1920's with respect to the validity of our capital estimates. We really have not made much improvement in this very important area over these decades.

To end with a quote of the summary section of chapter 2 of the report (p. 20):

> Wealth estimates are needed in many types of general economic analysis: of economic growth and fluctuations, productivity changes and differences, capital goods markets and general demand, differences and changes in rates of return, financial conditions, size-class holdings, and tax impacts. They provide a dimension not available in the income and product flow estimates, and help improve the accuracy of the latter.
>
> The analyses made possible by comprehensive wealth estimates together with other variables contained in the national accounts provide a richer background for economic projections and policy formulation than is now available. As has been true of the national income and product estimates, however, once wealth and balance sheet estimates become regularly available, uses for them will develop that cannot now be clearly anticipated.

Senator PROXMIRE. Thank you very much, Dr. Kendrick, for a comprehensive but concise presentation. I think we can go ahead and question you and then hear from Dr. Creamer and question him a little later.

If you were to list the four or five most important specific practical uses for this new statistical study of wealth estimates, how would you list them? I realize that you deal generally with some in your final conclusion in your summary.

Dr. KENDRICK. Yes.

Senator PROXMIRE. But to be a little more specific——

Dr. KENDRICK. Yes.

Senator PROXMIRE (continuing). Maybe you can do it best by giving some examples.

Dr. KENDRICK. Well, perhaps I should first list several more generally, but I would also like to refer to the statements of eight users, representing major user groups, and point out some of the uses that they see themselves. But as far as I am concerned, I would put production analysis No. 1. I mean not only do you need capital estimates for the production function of the type which Senator Douglas has developed, but there are efforts now to generalize the relationship of production to capital stocks more broadly by counting not only the tangible capital assets that we were concerned with in this report, the nonhuman capital assets, but also to estimate the value of the human stock, that is the costs of rearing the human being and investing in his education and so on.

Senator PROXMIRE. But that part of it, the human stock, as I understand it from the first part of your statement and also from your study, would not be included.

Dr. KENDRICK. That is right, because we felt we had our hands full just with the nonhuman. But what I want to say is that in conjunction with estimates of the human stock, these two stocks, the human and nonhuman, really explain the movements of production, because capital or wealth by definition is the capacity to produce, both human and nonhuman capacity to produce.

Therefore, you would expect the GNP (gross national product) or the measure of our output closely to parallel the movements of the stock of total capital.

Senator PROXMIRE. At any rate, what you would do here is get these aggregates, and they would have to be pretty generalized and very large aggregates, and you would try to relate the increase in the aggregate to the increase in production.

Dr. KENDRICK. Right.

Senator PROXMIRE. The gross national product to personal income, to other series, and determine if there is a pattern or connection?

Dr. KENDRICK. Yes; the connection between the stock and the income flow, not only for the Nation but also for the various sectors and the industries in as much detail as one wants to go, because in each industry the output is related to the stock that is used.

Of course, the other variable here besides the stock resources, human and nonhuman, is the rate of return. Now, this would tend to fluctuate somewhat over time, of course. So these two variables, the stock and the rate of return, really explain production. If it is the national objective, say, to obtain a certain rate of growth, one can see what the investment requirements are for this. Or let us say quite apart from any national objective, if a given industry sees a certain market for its output, if the firms in that industry see a certain market for the output ahead, they can estimate the capital stock required to produce that output, and thus the investment needed over the coming period to build that stock of capital.

Senator PROXMIRE. Would you be able to work out a rate of return that would mean anything for the overall, for the wealth of the entire country? In other words, the way a corporation does it, could you get the assets minus the liabilities with the net worth figure based on your inventory, and then relate a figure of net income to that net worth that would give you a rate of return for the Nation as a whole?

Dr. KENDRICK. This is exactly what I am working on, Senator Proxmire, at the National Bureau of Economic Research.

Senator PROXMIRE. You have not come up with the income figure that you relate to this net worth?

Dr. KENDRICK. I have not gotten that far yet. I just started this after the conclusion of our wealth inventory planning study. Actually this study group was liquidated at the time we completed the study. That was our objective and we spent our funds, and so this group really was terminated at that time. But after that, I began a research study at the National Bureau of Economic Research trying to measure all types of investment, both tangible and intangible, and the associated stocks of capital, human and nonhuman—the Bureau has been doing a good deal of work in this field, and my last step will be to try to relate net income to this stock to see what the return is over time.

Senator PROXMIRE. I see. Then production analysis would be your first specific.

Dr. KENDRICK. Right.

Senator PROXMIRE. Do you want to list any others?

Dr. KENDRICK. Yes. Next, No. 2, demand analysis. First of all, the demand for capital goods. It is obvious that if you have data on the stock of capital goods and the age composition of the capital goods, you have a pretty good idea of replacement needs, and also this gives you a background for estimating new investment demand. The Machinery and Allied Products Institute uses this method in its area. McGraw-Hill makes a rather detailed survey of metalworking industries to get the machinery that they have in some detail as a basis for estimating the demand for metalworking machinery. Quite a few of the transportation areas try to estimate the demand for transportation equipment by looking at the stock of equipment on hand, its condition, and the expected increases due to the growth of output that they anticipate.

So this has a very practical market analysis use.

Senator PROXMIRE. I see how there is a practical market analysis that is going on as you say right now in specific industries. But would you say that there would be a practical market analysis or a practical analysis that would be useful to Congress and the administration in determining fiscal and tax policy overall on the basis of say the replacement needs, evaluating tax policy, evaluating depreciation policy, and so forth?

Dr. KENDRICK. Yes; in two respects. I was mentioning the specific market for capital goods first, but, in general, demand in the private sector is influenced by the holding of assets of the different sectors.

Senator PROXMIRE. Holding of assets?

Dr. KENDRICK. For example, if consumers have more liquid assets, financial assets, at one time than another, they are apt to spend more money, so this helps in assessing consumer spending. Their durable goods holdings are also relevant. Here again through estimates of stocks, some idea can be obtained whether the present stocks are inadequate or whether the market is relatively saturated for the short run, and this helps to gage the short-term demand.

With respect to business investment, the points I just made are relevant, I believe, as background for assessing investment demand. Thus for purposes of short-term business projection, which does affect your fiscal policy decisions, these wealth estimates would be useful, I believe.

But more specifically, I think estimates of the assets holding by the Federal Government would be relevant, too, with respect to the requirements for new investment by Government in construction and purchase of equipment.

Senator PROXMIRE. In production analysis; and then give me just one more?

Dr. KENDRICK. Let me just glance at this summary listing I have to see which of these I would pick out.

One more that I will mention is rate of return comparisons among industries. If you have estimates of the net worth or of the total assets or the invested capital, all variants of each other, in different industries, you can compare the profit rate in the different industries. Now this can be used for various purposes. One immediate purpose is in connection with public utility regulation, the rate of return which is allowed by the various public utility commissions is set with reference to rates of returns in other industries, usually with some allowance for the fact that the public utilities are often not as volatile or as subject to cyclical fluctuation, and the fact that their return is perhaps subject to less risk, so usually the return allowed is somewhat less than in manufacturing, say.

But, nevertheless, better estimates of rates of return would perhaps help in better ratemaking in the utility area. This is a rather specific use.

Could I take just a minute to look at the statements by the eight user groups because they list some interesting uses, and I think I can run over those very quickly. I marked some of the uses last night.

Senator PROXMIRE. Yes; or you can put those in the record at this point. I think you have made an excellent reply.

Dr. KENDRICK. Thank you.

Senator PROXMIRE. Pointing to the two or three most important areas, production analysis, demand analysis, rate of return, why do you not cite the page where these are, and they may be put in the record at this point.

Dr. KENDRICK. All right. Let me just refer to pages 167 through 176,[2] giving the uses envisaged by eight major groups, user groups. I might mention one of these was by the National Resource Evaluation Center in the Office of Emergency Planning. For emergency planning I think it is useful to know our productive assets by industry, where they are located, and so forth. This is a specific Government use. Let me just add one other use, because these studies are not as well known as they should be, I believe.

The Budget Bureau is now doing some pilot studies of productivity in a number of Federal agencies. They published a report last year on five agencies in which they developed measures of output of these agencies and related them to the employment in the agencies, and, where they can, they relate them to the capital equipment and floor space used by the agencies.

The Post Office was one of the agencies studied in this pilot study.

Now, I think it is obviously useful to have estimates of the capital stock used by the Government agencies. The General Services Administration had already made a pretty good inventory of structures, of plant, of office buildings and so on. But we need a comparable inventory of the equipment used in Government.

One of our recommendations was that the General Services Administration conduct the same sort of inventory of equipment in use in Governmnet agencies as they have of the buildings.

Senator PROXMIRE. My time is up. I do want to ask one more question with the sufferance of my colleagues. You have an interest-

[2] Op. cit.

ing concept of wealth which I think differs perhaps from other alternative concepts, as net worth. For example, it would be conceivable that the Nation, speaking not of the Federal Government but of the Nation as a whole, private industry, might under some circumstances borrow a very large amount, invest that large amount, immensely increase assets but increase debt by a strictly comparable amount. According to your definition there would be no increase in wealth.

Now, it would seem to me that if this were the case, in most countries of the world our popular conception would be that the wealth of the country is increased, and I am not so sure that that would not be a pretty good common sense evaluation of the situation.

Dr. KENDRICK. You are quite right that our total assets would increase. However, if you subtract liabilities from assets to get net worth——

Senator PROXMIRE. I understand.

Dr. KENDRICK. In your example, if they borrowed all of the money required for the new projects, there would be no immediate increase in net worth of the sector, but there would be in the Nation. And I would think if these were productive investments, that gradually net worth would increase as the value of the assets rose relative to the financial liability.

Senator PROXMIRE. Then what your concept does is to require proof that the investment is productive, and that proof has to be established historically on the basis of the return which accumulates because the asset exceeds the cost of the borrowing of the money and servicing the liability, and therefore it is quite a conservative concept.

It is the regular accepted established private conception of what most of us feel wealth is, and I think from that standpoint it is one that is highly defensible although I can see its limitations.

Dr. KENDRICK. I think that is true. Let me just say that one variant of valuation of the Nation's wealth would have a somewhat different basis. If in the corporate sector, for example, you valued net worth in terms of the stock market valuation of the equity of the firms, this would tend to fluctuate as the market and thus as the evaluation of the future earning power.

However, we favor valuing assets in terms of their individual market value, assuming orderly marketing procedures, although we also suggested that this alternative valuation, using the value of equity, would be an interesting alternative for comparison purposes, and the ratio of these two values would be of interest in indicating the strength of confidence in the future, and so forth. But this was merely as a variant type of measure.

Senator PROXMIRE. Senator Douglas. I am happy to call on Senator Douglas who, as you said, Dr. Kendrick, is not only nationally known as an economist but is one who used wealth statistics years ago and is more familiar with the problem than any other Member of Congress.

Senator DOUGLAS. That was in a previous incarnation.

Dr. Kendrick, as you know, the Census does make estimates of national wealth, or did up until 1922, I think, and in manufacturers the statistics of capital given from approximately 1880 to 1919. The 1880 figures, as I remember it, were rather poor, but from 1889 on, 30 years, they have not been bad. Now, they were discontinued; manufacturing statistics were discontinued in the 1920's. Did you ever find out why they were discontinued, instead of improved?

Dr. KENDRICK. I would like, after saying a few words, to refer this question on to Dr. Creamer if I might, since he has worked in quite a bit of detail with those manufacturing estimates that you mentioned, and knows a good deal more about it than I.

Senator DOUGLAS. My question was really a rhetorical one.

Dr. KENDRICK. Yes.

Senator DOUGLAS. Those figures were discontinued upon the recommendation of the Joint Committee on Economic Statistics of the American Economic Association and the American Statistical Association, which said the figures were unreliable; you could never make anything of them; it was just a blind alley; no further attention should be paid to the subject, and so on.

I would now like to ask you whether you regard that as a fortunate decision or an unfortunate decision.

Dr. KENDRICK. I certainly regard it as an unfortunate decision. I think that part of the problem was that there was uncertainty as to the valuations used in these estimates. Presumably they largely reflected cost of acquisition. I think that if the basis of valuation had been determined more specifically and then an estimating agency of government had revalued these estimates in terms of current values and then perhaps deflated so as to get a real series, constant dollar series, that this would have represented great progress, and I would like to have seen those improvements made at that time.

Senator DOUGLAS. Of course the figures could have been improved but here you have a committee of experts recommending that they be completedly junked. The moral I draw from that is "Beware of experts." They are not always right.

Dr. KENDRICK. But usually we come back eventually to the right track; at least I hope so.

Senator DOUGLAS. After 40 years?

Dr. KENDRICK. Yes.

Senator DOUGLAS. And think of what could have happened in the meantime. I think what you ask for is highly important, but for 40 years it has been worth less due to the fact that the pundits of the 1920's said there was no future in any work of this kind.

Now, have you followed the annual indexes or annual censuses of production in the British Commonwealth?

Dr. KENDRICK. Not specifically.

Senator DOUGLAS. You know they have very complete annual volumes of not merely manufacturing but industry as a whole, and I think they are invaluable sources. Canada, as I remember it, has one. Australia and Victoria and New South Wales have separate ones. South Africa had one at one time. I think the British dominions have gone further than any other political units in the world.

There is one question I would like to ask and that involves the capitalization of land and natural resources. How can you separate what is an improvement in the land from an increase in the value of land due to pressure of population and increase in production in other lines?

Dr. KENDRICK. This was one of the difficult technical problems among many difficult problems that we had to face. We set up a special working group on natural resources chaired by Neal Potter, of Resources for the Future. As I recall, one approach that was suggested—and I would like to refer this on to Mr. Popkin on my right, who was the working secretary of that group—but as I recall, one approach suggested was to get the owner estimate of the current market value of the land then to estimate the value of the structures based on depreciated replacement cost. That is, get the original cost of the structures, apply a price index to that to bring it up to current value plus a depreciation rate; then subtract that depreciated replacement cost of the structures from the market value of the whole parcel.

Some taxing jurisdictions, I think, try to separate the tax base for the land from that for the structures, but I think this is done rather roughly, although that is one possible division. But this other method is another possible statistical approach.

May I ask Mr. Popkin if he has other thoughts on this subject? Mr. Popkin dealt with this area.

Senator DOUGLAS. Yes; I think that would be helpful.

Mr. POPKIN. I think Dr. Kendrick has covered the way in which the physical capital located on a particular acreage would be valued.

Senator DOUGLAS. I am speaking about the value of the land itself.

Mr. POPKIN. With respect to just public land, the recommendation was that regional valuation boards be set up and attempt to value the land based on a concept of what a comparable piece of land might be selling for on the market if you can find one.

Senator DOUGLAS. Here is a question. Do you recognize an increase in land values as an increase in wealth?

Mr. POPKIN. Yes.

Senator DOUGLAS. You do?

Mr. POPKIN. Yes.

Senator DOUGLAS. Is it that, or is it simply the ability to command wealth created by others or by other industries?

Mr. POPKIN. The price of land would rise in a constant dollar sense. The land should alternatively be valued in terms of its productivity, so that an increase in value apart from an increase in the productivity would be recognized.

Senator DOUGLAS. Productivity in terms of physical quantities or productivity in terms of dollars?

Mr. POPKIN. You would in a sense get both estimates, I would think. One would be the market value estimate and the other would be the constant value estimate.

Senator DOUGLAS. You are an economist. You have undoubtedly studied Ricardo. What would Ricardo say on the increase in land values? Is that an increase in wealth? Is it not true that when you get a tremendous increase in population, that this will naturally make land more of a scarce factor and will send up its market value?

Mr. POPKIN. Yes.

Senator DOUGLAS. But does that mean you are any wealthier or does it not simply mean that the land now can command more of the market but not necessarily produce more?

Mr. POPKIN. As a matter of fact, this is the source of the pessimistic growth theory of Ricardo.

Senator DOUGLAS. What decision did you make? You can produce figures on the increased valuation of land showing that the country is becoming very much more wealthy, but is that an increase in wealth or is it simply an increase in the ability to make wealth, to appropriate wealth created elsewhere?

Mr. POPKIN. If the product of the land gains a higher reward then the value of the land per se has risen, although if the product is unchanged in its quality or its real value, then there would be no increase in real wealth.

Senator DOUGLAS. Forgive me if I say this, but I think a little reading of Ricardo plus Henry George might be of some assistance on that point.

That is all.

Senator PROXMIRE. Congressman Curtis.

Representative CURTIS. Thank you, Mr. Chairman.

Let me first state how pleased I am with the work that your group has done, and express to the chairman of our committee my appreciation for holding hearings on this study and starting the dialog on what I regard as one of the most important subjects that we can develop.

I share the enthusiasm that has been expressed in your report, in your statement here, and by the chairman, in the value that can be obtained from moving forward. I regard this as only a beginning, and I suspect you probably do, too.

Dr. KENDRICK. Right.

Representative CURTIS. I was interested in getting a little more evaluation on the part of your group of the work which the Committee on Government Operations has done in compiling a Federal real and personal property inventory report of the U.S. Government, covering properties located in the United States, in the territories, and overseas as of June 30, 1964. I note that your task force does say on page 389:[1]

> The Federal inventory report of the House Committee on Government Operations is an approach to a balance sheet, but without the liabilities and net worth side.

I thought that they did have the liabilities in there. I know that they used cost value as the acquisition cost rather than the net worth. But I thought they did try to get liabilities in there.

Dr. KENDRICK. If they do, I do not believe they set it up as a balance sheet.

Representative CURTIS. Oh, I thought this was a net figure. I have the report in front of me. Maybe you do, too.

Dr. KENDRICK. Yes; I just got it.

Representative CURTIS. There is a comparison of reported inventory values worldwide, and their 1964 figures show a grand total of $324 billion. Now, I thought that that was an attempt to give a net figure as far as liabilities and assets were concerned, although as they state in here, this is acquisition cost. There is an attempt, I might say, in real estate values, for example, to try to get net worth.

I wonder if you would do this, because it would help me, inasmuch as this is a governmental document. It is the only one I know of where they are trying to do this. I know the committee is very anxious to improve its methodology. If you would—for the record—and if the chairman would approve, give us some criticism of the techniques.

[1] "Measuring the Nation's Wealth," Joint Economic Committee, December 1964.

I mean criticism in the proper sense of the word—constructive comment as well as where you think there are weaknesses.

Dr. KENDRICK. I think that this report is an extremely constructive effort, and I think that the congressional committees that inaugurated and continue this are to be congratulated for trying to get a summary picture of the assets of the Federal Government.

A major criticism is the one of valuation which you have already alluded to. Most of the realty is revalued to present-day values, what it is estimated this property would be worth in the market, if there were a market for it. And, of course, there is a potential market for much of it.

However, with respect to the personalty, as they call it—the equipment and so on—this is valued at original cost, and thus it probably is somewhat undervalued, and the prices have risen over time.

Representative CURTIS. Well, it could be overvalued. In fact, I would suggest it probably is, because there is no depreciation allowance in all of this.

Dr. KENDRICK. True, so that what I should say is that the original cost value gotten by the Treasury Department for the personalty does not accurately reflect current values. Whether it overstates or understates is something that could only be determined by a study of this, and one of our recommendations in this group was that the General Services Administration make a complete inventory of personalty, just as it has for the realty.

Representative CURTIS. Yes.

Dr. KENDRICK. So that we could get at the current value.

A minor criticism is that apparently this inventory is not a hundred percent complete. Gradually, since the beginning of this inventory in 1955, I believe additional items have been drawn in; so some of the increase is due to its expanded coverage, and I believe it is almost complete now, but there are still some items that are yet to be included.

Representative CURTIS. I think the field is about complete but you are very right.

To the extent that there might be further criticism, under the privilege which you have to revise your remarks, I would like you, if you would, to extend your remarks to help us on updating the criticism on this document. I know the committee itself would appreciate it, and I think it would be a good thing.

I would like to add one thought of my own. Let me say first that I am very anxious for those who want to have a Federal capital budget to encourage this to come about. I am a little bit tired, though, of those who keep talking about wanting a capital budget in relation to our dispute or dialog over how high the Federal debt might be and what our particular expenditures might be. When I seek to say, "Yes, let us do it and let us take a look as best we can at what our capital expenditures are," they do not seem to want to carry the dialog further.

On page 11 in this same House committee report is a breakdown into personal property and real property. It shows the Department of Defense. Under personalty, $127.7 billion is the Department of Defense equipment supply stock inventories, et cetera. The Department of Defense, including 1-year function, $41.47 billion for a total of $169 billion, which leaves only $155 billion of property in the civilian sector.

Another subcommittee of the Joint Economic Committee is engaged in studies of governmental procurement, including military procurement as a part of it. One of the things they have noted is the tremendous military surpluses that grow up. This is necessary because of the nature of obsolescence that is bound to occur in military equipment.

But those figures run over $20 billion of that material which is put on the surplus list. We have been selling about $7 to $8 billion a year—I think that is about right—of cost value on which we realize only 3 or 4 cents on the dollar, which gives a pretty good indication of one thing: Military equipment, including military installations, almost has to go on a capital budget book at $1. They are single-purpose types of buildings or equipment—a very necessary purpose; which is, to defend the wealth we have rather than wealth-creating itself.

I have always felt in a proper capital budget, including an estimate of wealth, we have to have a more realistic method of evaluating military assets.

Dr. KENDRICK. Yes, sir. I might mention one of the points made by the working group on Federal Government wealth was that depreciation should be estimated on the equipment. We had some dissent from the Department of Defense spokesmen in that they felt that as long as the military equipment were usable, or being used in place, that it was not depreciating until it was retired. But our feeling was that—when I say "ours," I mean mine particularly—there is an element of obsolescence going on all the time in military equipment and that this gross value that they list is rather unrealistic.

Representative CURTIS. As a matter of fact in the private sector the very interesting thing to me in today's depreciation schedules and depletion allowances is the factor of obsolescence vis-a-vis wearing out.

Dr. KENDRICK. Right.

Representative CURTIS. Wearing out means nothing today in a dynamic economy. It is obsolescence, and in the Military Establishment, the whole purpose almost is to continually render what they have, obsolete, by advancing. What is the DEW line worth today? Yet it is probably in these inventory figures at original cost acquisition, which is around several billion.

Dr. KENDRICK. Yes.

Representative CURTIS. That is too high. I see my time has run out, but I want to bring out one final point, and then I will come back, again trying to get this whole thing in context first.

I was a little disturbed at your first statement, comparing our inadequacies to what has been done by the Japanese Government and the Soviet Union. The seeming backwardness of the United States results from a clearer and much more advanced understanding of the complexities resulting to a large degree from the development in our country of accounting systems which are required by the maturity and sophistication of the Federal income tax and the very complexities of our society. I know that the reason for this to a large degree is that under the 16th amendment we can only tax income and not return of capital. We have had to develop very complicated systems of accounting to try to determine that which is capital and that which is not.

I would not seek to use a comparison between the U.S. development in this area with Japan, Russia, or anyone else, as a spur to have us move forward. Lord knows, as I have previously said, I think this is one of the most important areas to move forward in. Having this committee or another subcommittee trying to evaluate Soviet Russia's economics is misleading. Even comparing statistics in this area, which we are trying to do, inadequate as it may be, seems to me to put it completely out of context.

You can respond now, and later I will develop this further.

Dr. KENDRICK. Yes; I would like to respond, Congressman Curtis, to say that perhaps the chief reason for the Soviet inventory and census of tangible, reproducible assets in my view, after reading the good report on this written by Mr. Kaufman, was that it was undertaken in order to improve the accounting in their individual producing units. Apparently the management—the economic management—in the Soviet Union was fouled up to some extent by the poor accounts in individual units, and they conducted this inventory in part in order to force the individual enterprises to develop consistent balance sheet estimates and depreciation estimates for the purpose of better control by the economic authorities there.

Now, obviously, this would not be our purpose at all and, for that reason, we did not recommend the comprehensive type of census that the Soviet Union conducted. They went down and counted every piece of equipment and had engineers estimate its condition if it was of any value at all in order to get at the wear-and-tear factor. Obviously, we do not need this kind of information, because we are not a centrally planned and controlled economy, fortunately, for our efficiency.

However, my point is that while you are correct that we do have excellent accounting practices in American industry generally, particularly in the corporate area, we have not adequately tapped into this data yet to get aggregate-type balance sheet estimates for the economy and for industries, and it would be helpful in our analysis as background for policy to tap into this and get global estimates with a good deal of detail by industry, region, and so forth, as an aid in our economic policymaking.

Representative CURTIS. Thank you.

Thank you, Mr. Chairman.

Senator PROXMIRE. I think it would be helpful, in view of the fact the hour is getting late, if we hear from Dr. Creamer and then come back to question either one or both.

Dr. Creamer was chairman of the advisory committee of the study and is the manager, Special Projects Department of the National Industrial Conference Board.

We are glad to have you with us this morning. You may go right ahead.

STATEMENT OF DANIEL CREAMER, MANAGER, SPECIAL PROJECTS DEPARTMENT, NATIONAL INDUSTRIAL CONFERENCE BOARD

Dr. CREAMER. Thank you, Senator.

I have been asked to summarize the recommendations of the advisory committee to the wealth inventory planning study. I served as chairman of the group. This invitation automatically carries with it a firm constraint on the length of my statement since the advisory committee's recommendations were expressed in four printed pages of rather lean prose.

Before highlighting the recommendations, by excerpting its statement included the wealth report, I would like to mention two background considerations. One is the composition of the committee of 14. The primary consideration guiding the selection was expertness in one or more facets of this many-sided project. Some were skilled in the estimating arts of the national accounts, others in the statistical science of data collection, and still others in economic analysis in which the stock of wealth is assigned an important role. Thus both producers and users of wealth statistics were brought together to advise and evaluate. Many also had expert knowledge of a particular sector of the economy—agriculture, natural resources, manufacturing, trade, and finance, to mention the more notable examples. More by happenstance than design exactly half of the committee members were affiliated with Federal governmental agencies and half were not. Of the latter, two hold positions with private industry, two occupy academic posts, and three labor in private nonprofit research organizations.

Now, expertness often leads to strongly held views. Yet despite the expertise of the 14 committee members and the diversity of their specialties and backgrounds, the committee's recommendations had the unanimous support of its members. Although individual members were free to prepare supplemental statements on issues about which they were not in substantial accord, none chose to do so. This is the other background consideration that I should like to underscore.

Of course, if the recommendations are so general as to be empty of content, unanimity in itself is not impressive. The following summary of the advisory committee's recommendations, I trust, will persuade the members of this subcommittee that our consensus dealt with substantive matters and not empty generalities.

It is the unanimous view of the advisory committee that:

1. A complete view of capital formation and a full use of data on wealth require national and sector balance sheets that combine financial data and estimates of tangible wealth on a consistent basis. (A score of searching questions are cited that now go unanswered for the lack of national and sector balance sheets.)

2. Present information concerning tangible assets; that is, structures, equipment, land, and inventories is, on the whole, less satisfactory than data for financial items. Estimates of tangible assets, therefore, deserve priority in the collection of additional data.

3. The time is now at hand to initiate the planning and testing within the Federal statistical establishment that must precede an expansion of wealth data collection and the Office of Statistical Standards should act vigorously in this field.

4. A one-time census of wealth will not meet the needs of the analyst and policymakers. Rather, existing Federal statistical programs should be expanded to make possible benchmark year estimates which, in turn, would be extended annually with periodic adjustment to new basic data as they become available for particular sectors. The annual series should also be deflated to provide estimates of the value of tangible assets in constant prices.

5. Respondents to census and other inquiries usually neither should nor would be expected to provide information in such a form that it

could be directly incorporated into the aggregate estimates. To proceed otherwise would exceed the limits of what respondents can reasonably provide. The burden of transforming reported data into a consistent and significant whole would rest upon the responsible Federal statistical agencies.

6. Proposals for collection of financial data to improve and expand the financial as well as the real components of national and sectoral balance sheets merit careful attention. The suggestions of the report furnish a construction point of departure for further progress.

Finally, and by way of recapitulation, the advisory committee urges within the Federal statistical establishment a prompt start be made on plans to expand the collection of wealth data and to provide more comprehensive and detailed wealth statements and balance sheets to complement the existing national economic accounts. We recognize fully that not all the conceptual and statistical problems have been solved, and that the wealth estimates which eventually emerge obviously will not be perfect. But if we had waited for complete answers to all questions, we still would not have the U.S. national income and product accounts.

We stress that a long period of development lies ahead before the requirements for all potential uses can be met. But once the data base has been created and continuing wealth estimates become part of the economic accounts, we are convinced that they can and will be steadily improved to provide the empirical basis for a major advance in economic understanding.

In short, the advisory committee recommends the entire wealth study report for serious consideration by all those persons, both in and out of the Federal Government, who are interested in improving economic statistics. This report should serve as a most helpful basis for further discussion within the statistical agencies in planning for the improvement of wealth estimates. We believe the report also contains much that will be of value to scholars concerned with these problems. For this reason, your subcommittee has already performed a valuable public service in this field by arranging for the publication and distribution of the wealth study report.

It is the hope of the advisory committee that this subcommittee, and through it the Congress, will be persuaded by this wealth report that a wealth inventory and national and sector balance sheets are both necessary and feasible and that concrete proposals to implement this will, therefore, receive congressional financial support.

Senator PROXMIRE. Dr. Creamer, in achieving this unanimous recommendation for proceeding promptly to move ahead, how much weight was given to the cost of this survey?

Dr. CREAMER. Well, we felt there was no adequate basis for an evaluation of costs.

Senator PROXMIRE. You felt that the experience in 1920–22 was too remote, too distant, and the results too limited to perform a basis for an estimate?

Dr. CREAMER. Particularly the latter—results were much too limited to form the basis of an estimate. We must and can do a better job.

Senator PROXMIRE. Then I take it that your recommendation, while enthusiastic, is at least tentative in the sense that as responsible people all of you would feel that you would have to get some idea of how expensive this is.

Dr. CREAMER. That is right.

Senator PROXMIRE. Presumably it would be a matter of a few million dollars. It would not be a matter of a great many.

As I understand it, the cost of the annual population census, decennial population census with all of its ramifications, et cetera, is in the neighborhood of what—$100 million? I heard that somewhere; is that right?

Mr. KNOWLES. If you include the economic census which is part of that decennial package, it came out to something like—I think—$120 million the last time. It will probably come out in 1970 to something a little higher than that.

Senator PROXMIRE. At any rate, you would estimate that this project would cost a great deal less than that, a fraction of it; is that correct?

Dr. CREAMER. Yes. As has been explained, the expectation is that additional questions or schedules would be added to the regular census schedules to collect this information.

Senator PROXMIRE. Right. How would the inventory be accurate? This is a question that either you or Dr. Kendrick may want to respond to. Just taking, as I understand it, a period of 5 years rather than 1 year, and then you simply would estimate to bring it up to date. Say you started in 1976 to work on the 1980 census.

Dr. CREAMER. Yes.

Senator PROXMIRE. You have to do that, I take it. Then in 1976 you would make one-fifth or 20 percent roughly of your inventory, and in 1977 you would make another one-fifth, and so forth. In 1980 you would have made the total inventory. Then you would try to update, estimate what the depreciation factor, et cetera, would be between 1976 and 1980.

Dr. CREAMER. I think that is essentially right, except we are more optimistic, and we are shooting for 1970.

Senator PROXMIRE. Oh, yes. I am not assuming that 1980 would be the first year. I am just saying that. You could start next year then, 1966.

Dr. CREAMER. In 1967 when some of the economic censuses will again be taken.

Senator PROXMIRE. I see. Now there is a great deal of talk, as you know, regarding one of the big issues on statistics now before the Government: Whether we should have a quincennial census instead of a decennial census—once every 5 years. I presume that if we had population and other significant statistics that you would also want wealth on a quincennial basis?

Dr. CREAMER. Yes.

Senator PROXMIRE. You would?

Dr. CREAMER. Well, if it is useful for other purposes, certainly that opportunity should be exploited for the wealth estimate.

Senator PROXMIRE. How about the burden on the respondents? There is a tendency—and a perfectly understandable tendency—for all of us who want information to say let us get it. An additional question is not so bad. Yet we are all aware of what some of our constituents tell us about the burden of responding. This is true of small business and of big business. How much of a burden would this constitute say on a business of small size, 25, 30, 40, or 50 employees? What would they have to do to give an accurate and honest reply?

Dr. Creamer. Well, probably no more than they have to do now when they apply for a loan to a bank. It would be their balance sheet plus some detail on the types of tangible assets that they now have, which would again be reported, as Dr. Kendrick has mentioned, in book value terms. The transformation into current values would be done by the estimating agency. The plan is not to ask the respondent to prepare or maintain records that he is not now keeping. It is more a matter of culling the relevant material from existing records.

So I do not think the burden—obviously it is an addition—I do not think it would be considerable, and in due course we hope that the results will convince him that it is worth while.

Senator Proxmire. Would you go down to the homeowner, the automobile owner? A family rents an apartment, his assets consist of a little clothing and an automobile, they are very limited, maybe a net worth of a few thousand dollars, maybe even a few hundred in some cases, and these people by and large would be sampled.

Dr. Creamer. That is right.

Senator Proxmire. And you would make an estimate based on that sample?

Dr. Creamer. That is correct.

Senator Proxmire. And how large would be the unit which is comprehensively and fully inventoried? Do you set any benchmark, that is a firm that employs over a thousand people or has assets over $10 million or $100 million, to get a full inventory, or would you sample the whole universe in that carbon?

Dr. Creamer. Well, I think this would vary with the particular item of wealth or facet of it that is being considered. For some purposes, presumably—for example, in manufacturing—we would use the same cutoff that is now used in the annual survey. But for depreciation information—length of life and depreciation curve—you would, I think, use a much smaller sample and not this sample which, I believe, includes all companies that have an establishment employing as many as 100.

Senator Proxmire. You would not have any specific cutoff then, as I understand your reply.

Dr. Creamer. Well, for the——

Senator Proxmire. You would not require, for example, American Telephone & Telegraph and General Motors and the very biggest firms which, of course, by themselves are so important. You would feel, in some areas at least, a sample would be satisfactory.

Dr. Creamer. Yes.

Senator Proxmire. Do you want to add something, Mr. Knowles?

Mr. Knowles. Yes. The agencies, of course, have been very conscious of this problem. One step that many of us have advocated for years will, I hope, be in the next census cycle. This plan would make it possible for enterprises below a certain size to use one form to take care of both the census and the tax returns. They would use the tax return in effect for those particular years and simply pick up the material which is filed automatically with the Internal Revenue Service, and the firms in those particular size classes and types of business would not have to fill out a separate return at all.

In other words, regarding the number of forms being filed, wherever they can they are moving toward reducing this number drastically; where they can use something that has to be made out and filed anyhow, and not alter or amend the basic form.

If the information is already on one form, a second form will not be necessary, because we now have complete identification of individuals and companies. You can do this by machine; thus a machine will do the filling out of the form for the Census Bureau and not the respondent.

Representative CURTIS. The point is this. I was going to ask this question. The Internal Revenue Service has this data on the income tax forms. Every business has a depreciation schedule.

Mr. KNOWLES. This is almost so, sir. There are some firms that do not, but it is true that they could do this from the tax form wherever this is feasible. That would mean, in this inventory of wealth, wherever possible they would utilize existing forms—for example, the regulatory agency requires census-type forms for regulatory purposes filed with, say, the Interstate Commerce Commission. Thus they have a complete inventory of railroad assets. These would be picked up rather than writing a new form for somebody to fill out. What this group is really recommending is a marginal add-on to existing forms.

Actually, this would, I suspect, in the business sector, mainly affect firms above some minimum size. To the extent that they can—in the Internal Revenue Service—they would pick up many assets. There may be a few places where you would have to reform some of the reporting practices, IRS forms, so that it is clear what you are getting for this purpose. But this is perfectly feasible with a minimum response burden.

Senator PROXMIRE. Do you want to respond?

Dr. KENDRICK. I know you will want to explore this more with the Census Bureau representative on Thursday, but it is my impression that the Census Bureau would mainly be concerned with multiestablishment firms. As Mr. Knowles said, they are trying to use the IRS tax returns to the maximum extent possible for single establishment firms. But when you have a big company with a lot of establishments, we feel it is important to get the asset data by establishment, which they do not report to IRS, and so here the Census Bureau would add questions to their establishment surveys.

However, they are able now to link in these establishment returns with the company returns through consistent coding. So in effect what you get is a breakdown of the company statistics for IRS purposes on an establishment basis, the industry classification of which is more significant.

Senator PROXMIRE. I think that your response has been very helpful. I do think that on Thursday perhaps we can get as accurate and comprehensive as is available a reply as to both the cost of this census and the respondent burden from Messrs. Bowman, Goldman, and Hansen.

Representative CURTIS. I was very interested in this development. Let me carry a little further my own observation on some efforts I made in promoting and introducing what I call the seed corn tax credit for small business. This is what I am really after. It was corrupted, I might say, to the investment credit which was enacted into law. Note the investment credit is measured only in depreciable assets, further investment in depreciable assets as capital investment.

The point is that that will help the manufacturing sector, which largely invests in depreciable assets—machinery, buildings, and so forth. But the great movement in our society noticeably is in services and distribution, not manufacturing. Your capital assets there are accounts receivable and inventory. This is one of the harder things to measure in the Internal Revenue Service forms, the depreciable assets, the actual tangible wealth being pretty well set out.

However, I simply want to make clear for the record that we were able to get fairly good estimates on accounts receivable of businesses. These are small businesses throughout the country, and inventory.

As far as the small business in the distributive service field is concerned, if it goes from doing a million dollars to $2 million, it has to increase its accounts receivable and has to increase its inventory. It becomes a capital investment.

I wanted to move to the third point to try to get this matter in full context. This has been developed to some degree in the interrogation up to date, and certainly you dwell on it. So picking it out does not mean that you have neglected it at all.

As you point out, your work has been in what we might call the nonhuman wealth, the material things. I continually pose a hypothetical question to businessmen, and I now am satisfied with the answer, and it is very general. What if you were confronted with the proposition of losing all of your physical assets, your equipment, or as an alternative losing the personnel that you have built up over a period of years, skilled personnel? Which would you choose?

There is no hesitancy at all. They say, "We will take our personnel and go to work in a barn." I. G. Farben Co. is probably a good indication of the meaningfulness of this answer because that is almost what they had to do.

I think that as an economy continues to mature, as ours does, this emphasis is even greater than before. The human skills and putting together of a personnel organization becomes even more important than previously in relation to the physical assets.

In other words, contrary to the cartoonists' vision of automation, with a machine displacing the man, it is just the reverse. There is more emphasis on the needs of human abilities and human skills.

This does not detract from the importance of this study, I want to emphasize. I again say—and I am so pleased that our chairman has done the work necessary to bring about these hearings—I simply want to put this in context, lest anyone gain the idea that we are hitting at the whole of this even more difficult area.

I have always worried about the use of the gross national product as a method of measuring wealth. It is a measure of economic activity. The activity can actually be going backward, and I have seen it happen where it has been going backward.

It is true, I think, that over a range of years if you have a gross national product of $650 billion in relation to one of $200 million, and then account for your price changes, you can presume that the $650 billion of economic activity must be on a bigger base of real wealth than that which is producing the $200 million. But along this line I had some correspondence with Professor Macklup of Princeton

University who, in one of his recent books—and I put a chapter in the record—develops other measures of real wealth in society. He was talking in terms of knowledge, how to measure these things. I was going to ask you for your comment, but I want to enter two other thoughts that seem to be of importance.

I have already mentioned the tremendous rate of obsolescence. Our accounting system, Federal accounting system, our tax system, had not even caught up with these ideas. For years I have been trying to get better depreciation schedules for buildings. I have noticed the phenomenon—I saw it in St. Louis in my own community and then I have seen it elsewhere—where buildings that look like they are perfectly usable, almost brandnew, are torn down. Why? Because they are not air conditioned, and it is often more costly to put in window air conditioners than it was to actually rebuild the building.

Here is the kind of obsolescence that we are beginning to perceive. It has great bearing on these attempts to measure wealth.

And then the other comment is the single-purpose building. They are real estate all right, but they come close to being tools, such as in the chemical industry, where they are replaced rapidly.

I wonder how you would underscore this just for context that I am trying to relate.

Dr. CREAMER. On your last point, Congressman Curtis, there is an effort made in the statistics to distinguish between buildings and structures, and structures are usually defined as buildings that are really part of the equipment or the process, as you mentioned, in a refinery, which is a shell for equipment. So there is this distinction in the literature of structures and building, and an attempt will be made to collect statistics that would implement this distinction.

Representative CURTIS. The Internal Revenue Service is so out of date on this.

Dr. CREAMER. Yes.

Representative CURTIS. A.T. & T. can come in and get pretty good depreciation schedules because they have the engineers and accountants to argue the case, and also the knowledge of innovation. So they are pretty well up to date on obsolescence and getting obsolescence as a factor.

But your smaller concerns have to follow these rigid rules. So I would interject this caveat with regard to the value of IRS statistics. I think they are great and the best we have got, but I worry about how out of date our tax laws are in this very important area.

Dr. CREAMER. There is just one observation that comes to mind on your point concerning the relative importance of personnel, which, I take it, you are equating with knowledge and taxable wealth.

Representative CURTIS. Yes.

Dr. CREAMER. Mr. Thorstein Veblen made this point when he was pondering why nations are able to recover so quickly after a devastating war—it is because of the knowledge that exists, and I think that your observation is in the same vein.

Representative CURTIS. I have another observation on this same thing.

Senator PROXMIRE. Would the Congressman yield on that same point because I think he has raised a very interesting question.

Representative CURTIS. Certainly.

Senator PROXMIRE. Is it not true that in the same sense that you do not count wealth when a firm makes an investment on the basis of borrowed money, the same way you do not count wealth—although there has been an enormous investment made in development of human skill, human capacity, human ability—until that is translated into a tangible material gain of some kind—and that in this sense you are not failing to recognize the importance of human capacity to wealth, but you are waiting until it is tangibly materially demonstrated and is subject to an objective arithmetic count. Otherwise it would seem to me that an estimate of a corporation—they would not agree 100 percent of course—that personnel is far more important than bricks and mortar. It would not be possible to evaluate personnel objectively. How do you evaluate the ability of a man? You just cannot do it until it is translated. What you are doing is adopting a conservative proposal which is subject to objective inquiry, recognizing at the same time the great potential here in personnel.

Dr. CRAMER. Yes.

Representative CURTIS. I would add this other comment again to underscore it. Mass production—which is of course reducing things to your tangibles, your equipment, your machinery, and your buildings—is completely dependent upon mass distribution and mass services. As a society matures economically, it looks like the emphasis is much more on service and distribution, which also requires knowledge. But it does not show up so well in these tangibles.

Sure you can have grain storage places and refrigeration warehouses, and so on. But so much of service and distribution is in the field of human knowledge and skills, vis-a-vis manufacturing, that I think we have to add this factor into this thing in trying to go further.

I again want to emphasize this is in no sense to minimize the importance of what we are doing here. I am just doing my best to clear up my own mind, too, in keeping it in context of the whole economic process. That is why I sort of jump on the statement comparing this with Russia and Japan when they still have not developed mass distribution and mass services. They are way behind.

There is the European Common Market and the great potential there is in the field of mass distribution and mass servicing. Really mass manufacturing is old hat in this country and can easily be copied. But to try to copy distribution and services.

I have one final area I just want to direct attention to. This is the value that can be obtained here in the taxing field and the unheralded tax on wealth, the property tax, which is the basis of local financing of community facilities and so forth.

I have been arguing for years that this is by far the best tax, the one that is most economic, the one that has responded the best since World War II, if we will only look at it and start to update it, because it is based on assessment and continuing assessment.

I would like to refer to perpetual inventories. It is a constant thing. In the process of directing attention to wealth, we should also look to the inadequacies of our assessment processes of local governments in computing wealth. We have a great debate going on constantly on education as to whether the Federal Government should not be in the business of equalization. Our States are and our counties are doing that, as they should be in my judgment.

But I raise the question whether we need Federal equalization. The answer of those who say we do is "Well, look at your poor States," and I say, "What are these poor States?" And they come up with Mississippi, Alabama, and so forth. I say, "How do you figure they are poor States?"

"Well, look at their per capita income."

I said, "Look, we do not finance education in schools through income taxes. We finance it through tax on our wealth."

Now, you take a look at the wealth of Alabama or Mississippi and these so-called poor States, and you begin to see the true picture. You go to compare the wealth with the assessments and the real property tax, and one begins to see the picture immediately. These States are just as wealthy, not the wealthiest, but are comparable to any State in the Union.

We should, in the process of directing attention to this area of physical assets and wealth, relate it—as your introductory remarks have related it—to the importance of relationships of real wealth and productivity, debt to assets, property taxpayments to asset holders—in so many areas in our field of Federal income tax this is so important.

Dr. Kendrick. May I make a footnote to your last point, and that is that these old historical censuses of wealth in the United States from 1850 to 1922 were based on assessed valuations for property taxation purposes. What happened was that by county these assessed values were reported to the Census Bureau. Then, using U.S. marshals and later Census Bureau agents, they estimated the ratio of assessment value to the market value of these properties by county, as I recall, and using this blowup ratio, they estimated the wealth of the United States, and they had it by county and by State as well as nationally.

The problem was, for one thing that there was some uncertainty about the ratio of assessment to market. The second problem was that whereas this worked pretty well for the real property, it did not work well for the personal property because you had such a broad diversity of tax laws in the States and localities on personal property, which included machinery and equipment and so forth, that this was virtually no good for that class of property.

Incidentally, the Census Bureau still gets these estimates, this data on assessed valuations in their census of governments, and they also get the market value of the property which has turned over during the previous year, so they get a ratio of the assessment to the market for those parcels which have actually changed hands.

We suggest in the report that this approach still be used as a check on the estimated value of the real property, although not of the personal.

Representative Curtis. That is very helpful. I might add that the personal property tax in my judgment has turned out to be the poorest tax that we have, and it ought to be abandoned. And yet if one will study the history of it, it used to be a very good tax when we were essentially a rural society. Everyone knew what a pig was worth, cattle, and so forth. We still have those forms in Missouri, by the way. But today the personal property tax is outmoded, except for one item—and this in itself shows the story—the automobile. Why is the automobile a good item for a tax? Because there is a Blue Book which gives us the value of a used car so anyone can look and see. But how much is a rug worth or a refrigerator, furniture, and so on?

It gets us back to the very problem that you all are engaged in, which we agree on. I doubt if we can today develop an intelligent personal property tax unless it is selective, like picking out an automobile where we had a Blue Book value or something like that.

But real estate and buildings on it, I am satisfied that—I am not a single tax theorist, but I come very close to it because it has been so underregarded in recent years.

This study of yours can help us in getting our sights clearer on the value of real estate.

Senator PROXMIRE. Gentlemen, I want to thank you very much for an excellent introduction to these hearings. You have done a most enlightening job on a complicated and rarely explored area. I think you have given us a lot of encouragement.

Our witnesses tomorrow will be Dr. Denison, senior staff member of the Brookings Institution; Professor Lampman from the University of Wisconsin; and Robert Johnson, economist and actuary of Western Electric Co.

The committee will stand in recess until 10 o'clock in the morning.

(Whereupon, at 12:10 p.m., the committee was recessed, to reconvene at 10 a.m., Wednesday, June 2, 1965.)

MEASURING THE NATION'S WEALTH

WEDNESDAY, JUNE 2, 1965

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMIC STATISTICS
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:10 a.m., in room 1202, New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire; Representative Curtis.

Also present: James W. Knowles, executive director; Gerald A. Pollack, staff economist; Donald A. Webster, minority economist; and Hamilton D. Gewehr, administrative clerk.

Senator PROXMIRE. This morning the Subcommittee on Economic Statistics continues with the second of three mornings of hearings on the subject of "Measuring the Nation's Wealth." These hearings are based upon a report on this subject made by the Wealth Inventory Planning Study, established by George Washington University under a grant from the Ford Foundation. This morning we have as our witnesses three distinguished economists with special competence to discuss this report.

Our first witness is Dr. Edward F. Denison, senior staff member of the Brookings Institution, a longtime student of national economic accounting and its application to the analysis of various economic matters, including the growth of our economy. He was one of the pioneers in putting together the present system of national income and product accounts.

Our second witness is Dr. Robert Lampman, professor of economics at the University of Wisconsin, who I am particularly delighted to welcome both as a member of the faculty of the State university in my home State and as a distinguished contributor to economics, including extremely able contributions to past studies of this committee.

Our third witness is Robert Johnson, economist and actuary for the Western Electric Co., the manufacturing arm of the Bell Telephone System. Mr. Johnson has had wide experience in economics generally, especially in the use of quantitative techniques of various types for the solution of business problems.

Our procedure this morning will be to have each witness present a brief opening statement and then the members of the subcommittee will question them as a group.

Mr. Denison, you may lead off.

STATEMENT OF EDWARD F. DENISON, SENIOR STAFF MEMBER, THE BROOKINGS INSTITUTION[1]

Mr. DENISON. The Subcommittee on Economic Statistics is to be congratulated for helping to make generally available the report of the Wealth Inventory Planning Study, "Measuring the Nation's Wealth." This particular hearing is being held to consider, and I quote the letter of the chairman, "the question whether or not this subcommittee and the Congress should at this time take steps to implement the findings and recommendations of the study group."

I should like to comment first on the word "at this time." They are important because, if the study group's proposals to develop national wealth estimates and national balance sheets are going to be adopted at all, it is necessary that a beginning be made promptly. Otherwise, it appears, the program will have to be delayed for a decade.

The study group proposal, it must be realized, does not call for a special census of wealth that can be taken at any time. For reasons of economy and efficiency it rightly envisages a program that would use existing census and other surveys to collect most of the required data, and would use special surveys only to fill gaps in the coverage of existing surveys. The bulk of the data collection would be tied to the 1970 Decennial Census of Population and Housing and the various industrial censuses, most of which are on a 5-year schedule, for the years closest to 1970. If the 1970 date is missed, we shall presumably have to wait to build a program around the 1980 census.

If data collection are to center around the 1970 census, the next steps must be set in motion very soon. As the study group report makes clear, a good deal of hard thought, preparatory work, and testing is needed before field collection of data can be undertaken, and actual estimates made. The time available for this is none too long.

The Kendrick report is, let me stress, a most substantial achievement. It assembles and sets forth systematically just about all the information that exists concerning what is now available, what needs to be obtained, and how to obtain it. The staff was able to draw on the help of nearly 200 experts and advisers, a fact that itself testifies to the great interest in this subject. The study was a necessary step in the process of developing measures of wealth, and it is not one that could be soon repeated if the present report is not acted upon before it is outdated.

But the time and money available to the staff did not permit as much research as is necessary to establish the best way to get answers to several tough questions, including questions of valuation and measurement of price change. They permitted almost no field work to determine, in detail, exactly what information respondents can provide, or how questions can best be formulated on survey schedules. Before actual data collection can be undertaken, and before we can even be certain that some suggestions of the report are capable of implementation, study and testing will be necessary by the Government agencies responsible for coordination and development of national accounts and by the agencies responsible for data collection. There is also

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[1] Views expressed are my own and do not purport to represent the views of the Brookings Institution, its trustees, authors, or other staff members.

much to be done in the way of assigning responsibilities and time schedules to the agencies. Thus, if this subcommittee and the Congress are going to support this particular program at all, they will be wise to do so "at this time."

I have begun with the time element, rather than the need for the data, because I consider quick action essential. However, you will no doubt have guessed that I believe the proposals should be supported. The Kendrick report itself well states at several points the important uses for data on the Nation's assets and liabilities that will become available if its proposals are implemented. I can state from my own experience and observation that a large fraction of all the important questions that economists seek to answer—and most of these are also questions that concern the Joint Economic Committee and the Congress as a whole—could be answered better if we had more complete, detailed, and accurate data concerning wealth, asset holdings, and liabilities. This is certainly the case when we deal with economic stability, economic growth, and resource allocation.

A study of economic growth that I am now conducting has made me keenly aware of both the need for accurate data concerning the capital stock and of the inadequacies of the information available. I am trying to analyze the sources of postwar economic growth in the United States and eight countries of Western Europe. The European countries are Belgium, Denmark, France, Germany, the Netherlands, Norway, the United Kingdom, and Italy. In this study I am using a consistent approach and trying, of course, to use consistent and accurate data for all the countries. To undertake such a study without estimates of the capital stock would be as absurd as to ignore changes in employment. Therefore, I am assembling the best data for the capital stock that I can, even though I am only too keenly aware of their inadequacy. You may be interested in what the estimates of the stock of business structures and equipment, excluding dwellings, show with respect to changes that occurred in the period from 1950 to 1962. Over that period, the countries fall into three groups. Belgium, the United States, the United Kingdom, and France appear to have had the smallest percentage increases in this part of the capital stock. Italy, the Netherlands, and Norway had much larger increases. In Germany and Denmark the stock increased still more rapidly. If we take only the period since 1955 the comparison is much less favorable to the United States. Since 1955 the growth rate of this important part of the capital stock has been lower in the United States than in any of the eight European countries, and much below all but Belgium.

I cannot, of course, guarantee the accuracy of the data upon which this comparison is based, although I do believe the results to be generally correct. Neither have I been able to assemble the detail that would be desirable for a full analysis. If I could do these things even for the United States I would not be here today. Let me mention only one uncertainty that affects the aggregate comparisons. For the U.S. capital stock I have used the Office of Business Economics estimates that are constructed by the perpetual inventory method using Bulletin F service lives. When European national accountants and economic statisticians estimate the capital stock of their countries they typically use service lives for capital goods that are a great deal longer than Bulletin F lives.[1]

I believe capital goods actually are used longer in Europe than in America so that some difference is warranted, but whether the difference is as great as the estimates imply is doubtful. Fortunately, for my particular study I can compare my results with those that would be obtained by using service lives for the United States as much as 40 percent longer than Bulletin F, and the difference in my comparisons is not very great. However, it is not always the case that the calculated movement of the stock is insensitive to the service lives assumed. Moreover, the estimated level of the stock, as distinguished from its movement, is very sensitive to the assumptions concerning the length of service lives. Uncertainty about actual service lives is one reason that comparisons of the level of the stock in different countries are very hazardous. This uncertainty carries over to many other calculations, such as rates of return and estimates of replacement requirements. The computed average age of capital, in which there is also great interest, is very sensitive to assumptions about service lives. We hear a lot, for example, about German industry benefiting from having a younger average age of capital than we, but it is very difficult to say whether there is any validity to this suggestion. Better information on actual service lives is, of course, one of the objectives of the study group proposals.

I do not myself intend to draw any conclusions here about the relationship between growth rates of the capital stock and growth rates of national income. I think it is a fair inference, however, that the Kennedy and Johnson administrations and the Congress have already concluded that the growth of the capital stock needs to be accelerated in the interest of economic growth. I infer this from the introduction of the investment credit, and from changes that have been made in tax regulations with respect to the depreciation allowable for tax purposes. These changes, which involve several billion dollars a year in taxes, represent an effort to stimulate economic growth by increasing investment and the increase in the capital stock. I think Congress will want to know what these measures are achieving, and whether they are worth their cost. Information on the capital stock that is now available is neither accurate enough nor detailed enough to provide a sufficient basis for evaluation.

Proper formulation of public policy in the future will continue to require data on the Nation's wealth, and these data should be integrated with the national income accounts. We cannot foresee all the uses to which such information will be put, any more than we could foresee all the uses for the existing national income accounts, but the needs already apparent are numerous and important, and we can be certain that they will be continuing needs. The Kendrick report is the first major step setting in motion a real effort to meet these requirements. I hope the Subcommittee on Economic Statistics will do what it can to move this program forward now.

Senator PROXMIRE. Thank you, very much, Mr. Denison.

Mr. Lampman, will you proceed?

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[1] This statement has no relevance for service lives allowed by tax regulations, which are not used by European national accountants and statisticians in developing their estimates.

STATEMENT OF ROBERT J. LAMPMAN, PROFESSOR OF ECONOMICS, UNIVERSITY OF WISCONSIN, AND MEMBER OF EXECUTIVE COMMITTEE, CONFERENCE ON RESEARCH IN INCOME AND WEALTH

Mr. LAMPMAN. The question which you have asked me is this: Should this subcommittee and the Congress at this time take steps to implement the findings and recommendations of the Wealth Inventory Planning Study? The latter are, in turn, that we would benefit from and should move toward the development of national balance sheets as an integral part of official national economic accounts.

My answer to that question is strongly affirmative. Estimates of the national wealth and of claims on it by sectors and within sectors will add meaning and lend symmetry to the other systems of accounting now in use, namely, national income and product, balance of payments, flow of funds, and input-output systems. Such estimates will be valuable in answering numerous questions that are of interest to economic theory and practice. They will contribute to deeper understanding of how our economic system functions and changes over time and hence to more accurate appraisal of policy recommendations.

At this point in time national balance statements are in approximately the same stage of development as were income and product accounts in the early 1930's and as were input-output and flow-of-funds tables in the early postwar years. We have now moved through the stage of private investigation, demonstration, criticism and reformulation which preceded the assumption of responsibility by the Federal Government's statistical establishment in each of the other cases. The pioneering work of a small international band of scholars, led by Raymond W. Goldsmith, the careful attention of several meetings of the Conference on Research in Income and Wealth and one meeting of the International Association for Research in Income and Wealth, the recommendations of the National Accounts Review Committee of the National Bureau of Economic Research in 1957, and their report, of course, was made to this committee, and now the report of the Wealth Inventory Planning Study have brought us to the point of readiness for government to take steps that will lead to an official series on our national wealth. In this connection one cannot but be impressed by the accomplishment of mission by Dr. John Kendrick and his study group. That mission, as set out for them by the advisory committee, was to "explore the problems and possibilities of a meaningful national inventory of wealth, and to develop guidelines for the collection of the requisite data and preparation of finished estimates." The admirable achievement of this group now, in effect, puts the Joint Economic Committee, which has been a great exponent of the value of economic information, in a position to make the next move.

I submit that all economists will be much in your debt if you do make that move. In appraising the economy we are often in the position a farm appraiser would be if all he knew about a farm was its current output and cost of operation. To make a sensible appraisal of the value of the farm and the farmer's efficiency he must know about the land, capital, and labor being employed and the claims against the wealth. Analogously, we know a good deal about the income and product of the national economy, and about the sources and uses of funds and about the labor force, but we are woefully short of information about land and capital in use. And it is that shortage which only national balance sheets can remedy.

The many uses to which national wealth data would be put can be summarized under the headings of "supply" and "demand." On the supply side, wealth data would be useful in developing better estimates of national productive capacity or potential, in appraising productivity and efficiency in the use of capital and labor, in comparing industries' needs for higher rates of return, and for new inflows of capital.

On the demand side, wealth information will help us understand variations in the demand for capital (perhaps it is worth noting that households now buy more what might be called capital goods than do business firms) and variations in consumption. Knowledge of changes in the composition of tangible and intangible wealth and of changes in debt should help us to understand the processes by which an economy grows and changes in structure. Finally, more information on intersectoral and intrasectoral distribution of wealth will provide valuable descriptive information and aid in predicting the effects of tax and monetary policy changes. In all of this, wealth accounts will verify and add meaning to the other four types of accounts now in use.

I conclude that the time has come for the Federal Government to initiate a plan for systematic collection of wealth data within a broad conceptual framework—and as Mr. Denison has pointed out, the earliest time we are talking about is almost a decade ahead—looking forward to the early development of national balance sheets as a part of an integrated fivefold system of national economic accounts. To do so would be a timely and useful contribution toward the inquiry Adam Smith started 189 years ago into the nature and causes of the wealth of nations.

Senator Proxmire. Thank you, Professor Lampman.

Our last witness is Mr. Robert Johnson.

STATEMENT OF ROBERT E. JOHNSON, ECONOMIST AND ACTUARY, WESTERN ELECTRIC CO.

Mr. Johnson. The following statement summarizes my personal thoughts in this matter. It does not necessarily represent an official position taken by my company.

I have been asked to comment on whether the recommendations of the Wealth Inventory Planning Study Group should be implemented by the Congress at this time. It is my belief that they should be if an appraisal indicates that the costs involved will be reasonable. I concur generally with all of the proposals outlined in the study, but would like to stress today just a few aspects of the project which, to me, seem particularly important. Briefly, these aspects encompass:

Integration of the system of national economic accounts.
Coordination among Government statistical organizations.
Utilization of available data and sources.
Confidentiality of data.
Need for prompt implementation.
Required developmental work on price indexes.

The problem of industry sectors and multi-industry establishments.

Conceptual difficulties in the area of tangible asset valuation and capital consumption allowances.

Importance of the data for fiscal and monetary policy, productivity analysis, and input-output studies.

As we know, the national economic accounts encompass several sets of statistical data designed to measure the Nation's economic activity and well-being. They consist of the income and product accounts, input-output tables, flow-of-funds statements, balance-of-payments statements, and national balance sheets. In the past, and to a considerable extent even today, these sets of data have led independent existence, being compiled by separate organizations with varying degrees of frequency, precision, and detail. In addition, there have been variations in the degree of general agreement existing about the conceptual framework behind the various national economic accounts.

The National Accounts Review Committee of the National Bureau of Economic Research strongly recommended the integration of these accounts in its excellent 1957 report, which was covered in hearings before this subcommittee in October of that year. Since that time some steps have been taken in that direction. For example, it is now possible to reconcile both the international balance-of-payments statement and the Federal budget with the income and product accounts. Also, the recently published input-output tables have been integrated with the income and product accounts.

It seems vital to me that plans to implement the recommendations of the wealth inventory planning study group should include the integration with the other national economic accounts of the national wealth statements and balance sheets which will grow out of the wealth inventory. Such a process will influence the definitions and framework adopted for the wealth inventory. It will also undoubtedly involve conceptual changes in the other accounts as, for example, the handling of consumer durable goods in the income and product accounts.

The national income accounts are analogous to the accounting records of business firms. As such, their integration has the same advantages at the national level that an integrated set of accounts has for an individual company. It adds to their usefulness in policymaking; makes them easier to understand; and improves them conceptually, since the very process of integrating them reveals gaps in the separate bodies of data. In addition, integration can reduce costs through the elimination of overlapping but separate underlying data systems.

The prospect of taking a wealth inventory and the integration of the resulting national balance sheets into the system of national economic accounts is going to require a tremendous amount of coordination among Government statistical organizations. The wealth inventory planning study contains a recommendation that the project be carried out under the leadership of the Office of Statistical Standards, "possibly through an interagency wealth committee." I agree that this would be the most logical arrangement under the existing Federal statistical system. In view of the large number of agencies involved in such a project, it would seem to me that such a committee should be formed without delay if the time schedule recommended by the study group is to be achieved.

Beyond this, however, the time has arrived for a reexamination of the whole Federal statistical system, particularly with regard to the advantages and disadvantages of its decentralization. This was last looked at in the mid-1930's, at which time the predecessor agency to the present Office of Statistical Standards was established. The proliferation of economic statistics during the postwar period and the potentials of large-scale computerized data processing represents significant developments which may well have tipped the scale of net advantage toward centralization of the statistical functions of the Federal Government.

The Bureau of the Budget does a fine job of minimizing duplication of effort through its function of overseeing the statistical programs of the various Federal agencies. However, as a businessman faced with furnishing data to myriad different agencies, I suspect that the reporting burden on business might well be significantly less under a centralized system. In addition, the integration of economic statistics would be vastly simplified, statistical research effort could be concentrated, and fuller advantage could be taken of the potentials of technological improvements in data processing.

I do not know whether these factors outweigh the advantages of the present decentralized system. However, they seem to me to be sufficiently important to warrant a new look at the whole matter.

The study group has recommended that the collection of data for the wealth inventory be tied in with existing programs in preference to taking of a onetime "census of wealth." To me, this recommendation encompasses both (*a*) the utilization of data already being collected and (*b*) the collection of other data, not now available, through supplementary inquiries on already-established reports. I wish to heartily endorse this recommendation, both because I think the suggested procedure will contribute to the conceptual consistency and integration of various sets of economic statistics and because it should help to minimize the cost burden on Government and industry.

In this connection, I believe that the Wealth Inventory Planning Study did not investigate the cost aspect of the project. The lack of order-of-magnitude data on costs prevents meaningful discussion on the feasible degrees of detail and actually requires that my endorsement of the project be a conditional one.

I would like to take this opportunity to stress the importance of clarifying, protecting, and strengthening where necessary the confidentiality provisions under which data is submitted to Government agencies for statistical purposes. As you will remember, this was an issue in a recent case involving the census of manufactures reports submitted by one business firm. Since the present project will require the submission of additional internal data by businessmen; such as, the age distribution of depreciable assets, the confidentiality provision could be a vital consideration to industry. This is an area which the subcommittee may wish to explore in order to insure that adequate protection is afforded.

If the proposed wealth inventory is to be geared to the 1970 Census of Population, no time can be lost in getting underway. The need for decisions on the integration and conceptual consistency of the various national economic accounts and the development of cost estimates for project alternatives are preliminaries which have already been alluded to. Time-consuming work needed on price indexes will be discussed later.

The economic censuses will be a vital source of information. As I understand it, the next two such censuses are planned to be conducted in 1968 and 1973 covering operations during the years 1967 and 1972. It would seem to me to be highly desirable that the earlier of these two censuses be utilized to obtain the supplementary data required for the wealth inventory. If this is to be accomplished, and the traditional and highly desirable Census Bureau practice of consulting with industry on the census format continued, preliminary work should get underway quite soon.

I think it is generally agreed that the weakest area of the Government's statistics measuring price change encompasses construction and producers' durable equipment. This is not in any way meant as a criticism of the agencies constructing price indexes covering these sectors of the economy. Aggregate price changes for the economy as a whole in these areas are very difficult to measure, and agencies such as the Bureau of Labor Statistics have accomplished much within the resources available to them for price-index research.

As long as these indexes are used primarily as components of broad indexes of total price change, the problem is probably not too serious. For instance, construction and producers' durable goods amount to only about 15 percent of gross national product. Therefore, inadequacy in the price indexes for these categories does not impact too seriously on the accuracy of the GNP deflator.

However, these inadequacies will be a serious shortcoming in the restatement of the elements of a wealth inventory into current dollars. I therefore recommend strongly that the implementation of the wealth inventory planning study include provision for developmental work on price indexes.

Frequent mention is made in the report of the wealth inventory planning group of the development of breakdowns of the data by industry. In the case of manufacturing, four-digit SIC industries are indicated as representing the desired degree of detail. I agree that this would be desirable, but I am somewhat concerned about the significance of the results at this level.

As a result of both technological developments and the trend toward diversification of product lines by companies, it seems to me it may not be possible to categorize manufacturing establishments by four-digit SIC industry codes as neatly as has been the case heretofore. My reactions in this area may be unduly influenced by my own experience since the output of most of Western Electric's individual establishments does not fall in a single four-digit SIC code. The primary product does not usually account for the 90 percent of output mentioned in the report. To the extent that our situation is typical it will reduce the significance of detailed industry breakdowns. This is an area which warrants further investigation before any decisions are made concerning the degree of disaggregation that is feasible.

Although there are many conceptual difficulties in wealth measurements and valuation, I should like to stress two which seem to me to be of particular importance. Both have been covered in the report of the wealth inventory planning study.

It is generally recognized that the depreciated book value of tangible assets as a measurement has deficiencies for many analytical purposes, because of the problems of price change and shifts in depreciation practices. It is for this reason that stress is always placed upon the need for revaluation of such assets into current prices and the application of consistent depreciation procedures in the development of wealth estimates.

The difficulty in both cases stems from the fact that policy decisions were influenced by the original data on depreciated book value. Something is therefore lost in the restatement. As a result neither the original nor the restated data provide an optimum measurement. It is not my intent to indicate that the wealth inventory be delayed until all such questions are resolved, but merely to urge continued research in these areas.

I would like to close this statement on an affirmative note by stressing the importance of the project under discussion in these hearings. The report of the Wealth Inventory Planning Study contains a fine summary of uses to which a study could be put. The major-use categories listed in the report are—

Studies of economic aggregates and their structure;
Productivity, or efficiency, studies;
General demand analysis;
Analysis of capital goods markets;
Rate of return comparisons; and
Financial analysis.

If the national economic accounts are somewhat analogous to the accounting records of the business firm, the present situation can be likened to the corporate decisionmakers operating with an income statement and cash-flow statement, but with no balance sheet to help them. I am sure no corporate executive would choose such a situation if it could be avoided. Thus, although there are conceptual and measurement difficulties in the taking of a wealth inventory which have not been completely resolved, this should not lead to a postponement of the present project. Refinements can be added later, based on the experience obtained in this first attempt. This has been the route followed in the development of the other national economic accounts and it has proved to be a very workable arrangement.

I will leave it to other speakers before this subcommittee to outline the specific uses of national wealth statements and balance sheets for fiscal and monetary policy. I will limit myself to their utility to business. These fall into several general categories.

1. FORECASTING OF GENERAL BUSINESS CONDITIONS

At least in their formative period, these asset data will undoubtedly be available too infrequently and too late for use in the analysis of short-term fluctuations. However, through the insights they can bring, for example, to shifting liquidity and capital-output ratios, they can make a significant contribution to long-term forecasts as well as improve the framework within which short-term forecasts are made.

2. STUDIES OF SPECIFIC INDUSTRIES

The proposed industry detail will make possible studies of changing structures of industries to which a firm sells its product. If the industry sectoring in the national balance sheets matches that in the input/output tables, this will add significantly to the utility of the latter.

In the case of industries now required to report asset data to various Government agencies, there may be some special advantages. Adjustments could be made which would put the data from these industries on a consistent basis. Such comparability is essential to useful interindustry analysis.

Many new types of comparison of data for an individual firm with comparable industry data will be possible.

3. PRODUCTIVITY ANALYSIS

Efficiency is a vital concept to business and comparative studies in this area could be most helpful. However, the official statistics available on a regular basis are limited in their usefulness and for some purposes actually misleading, because only labor inputs are used in the denominator of the productivity ratio. The development of national balance sheets should bring about significant improvements in this area, since it would make available benchmark data needed for measuring capital inputs.

In conclusion, I believe that work on the wealth inventory is an important project that should be undertaken. I appreciate the opportunity of appearing before the subcommittee and will be glad to answer any questions that you may have.

Senator Proxmire. Thank you, very much, Mr. Johnson.

Congressman Curtis?

Mr. Curtis. Thank you very much, Mr. Chairman.

Let me thank the panel for its great help in throwing light on this very important problem.

I think I am beginning to understand why I have uneasiness about this movement forward. I do regard it as a movement forward, and I certainly share the enthusiasm of those who are moving to develop this most important statistical tool. I think this uneasiness comes from my concern lest, as with any tool, we should think it is going to do too much. We should put it in the context of its limitations. Perhaps my concern can be expressed in the use of the word "wealth." The paper yesterday pointed out that the attempt was only to deal with "nonhuman" wealth, though that is not a very good term. But it does point out a very important distinction that we have to bear in mind. Wealth really consists of a combination of the physical goods, the tools, with the know-how of the human beings. Certainly if we do not have the human know-how, there is no real wealth. I am impressed with the emphasis now being placed on the limitations of data processing and computers. Without know-how it has been called an idiotic output. I am impressed with the attempts of some of our developing countries to have steel mills or jet air force bases—this is material wealth in a sense, but it is out of context. It is uneconomical.

I am impressed with the inter-American highway. It was built without having the concept of proper maintenance. Some of the wealth that was created has deteriorated as a result. We have physical wealth and do not relate it to maintenance as well as use.

I wonder if there is a better term then "nonhuman" wealth that could be used in developing what we are talking about. Perhaps a different term would not get us off on the wrong base as to what this new economic tool can do. Is there any comment from the panel on that? I would hate to see us continue using the term "wealth" to describe this portion of wealth.

I might interject another idea. As a society moves forward economically, it is my observation that you rely more and more heavily on human knowledge. It becomes more important in relation to the physical wealth. It becomes quite important as we move into this area to stress the difference. We are talking about one part of wealth. Maybe we can get a better term here so that we do not have a confusion in the beginning.

Would anyone care to comment on that? Do you think my observations are unsound? Or do you think they are sound? What can we do on semantics in the very beginning?

Mr. DENISON. Mr. Curtis, your observations are certainly sound. Among people who have worked on economic growth, I have been inclined to put more stress on human resources, particularly on changes in the quality of the labor force, than most. I think the perspective one must have in mind, however, is that we have been collecting a great deal of information on employment, on the labor force, on its composition, on education—not as much as we should like to have, of course, but much more than on wealth. The point I would make concerning your general observation is that from the standpoint of information and statistics we are well ahead in the labor area of where we are in the area of physical wealth.

You also spoke of what I call "advances in knowledge," that is to say the new ideas and new know-how that raise national income and living standards. Information in this important area is probably even less satisfactory than that for physical wealth. But we do not know how to remedy the defects; that is really the problem. A good deal of study is going on, but this is a very difficult subject.

I am afraid before we have a proposal like this in that area, it is going to be another couple of decades.

Mr. CURTIS. I am really interested in your observation that we are far ahead in emphasis on physical resources than we are in human wealth. I, too, have been far more concerned about the human resource area. Your knowledge is greater, but I have almost come to the reverse conclusion. We have not even a job vacancy statistical series set up. We do not even have common nomenclature on skills.

Of course, I would excuse our inability to move forward in measuring human resources on the grounds that it is so much more difficult to evaluate. But still, when we start talking in terms of wealth, we are talking about both human resources and these physical things.

Yet the papers on this sound as if we are really measuring the Nation's wealth. We are not. We are measuring a part of its wealth. Having tried to cope with what you would call macroeconomics over a period of years and taking some of these aggregate statistics and using them for policy judgments, which I think they are not qualified to be used for, there arises an abuse of the gross national product concept. Certainly gross national product is probably the best single statistic we have. But it was never designed to measure economic growth. It measures economic activity, which could be going backward or going sideways. Yet the macroeconomists have come along and used gross national product as if it can measure true economic growth.

I am a little bit concerned if we start out this early in using too broad a term for what we are talking about with regard to wealth. Is there not a better term?

I again emphasize that physical wealth is going to become, percentagewise, a lesser part of total, or true wealth. It has to be. I guess we have to get it in this context. Both are necessary. You cannot move forward in real wealth without considering both human resources and physical.

Is there a better term?

Mr. LAMPMAN. Mr. Curtis, if I could make a brief response, I am afraid I do not have an answer for you, but one of the things that is involved in this concept of wealth is the distinction between the tangible and the intangible. Here we have a use of terms that are somewhat different from what you were talking about under the same general use of terms in tangible and intangible wealth as it would relate to a national balance sheet. We are talking about the physical assets as opposed to the intangible claims on those assets.

Mr. CURTIS. That is right, money and——

Mr. LAMPMAN. Money and stocks, and bonds and mortgages, and so on. So that a full national balance sheet would include a representation of the two physical inputs that generally are covered under the terms "land" and "capital." And it would include a good representation of the financial structure of the economy.

Now, putting all of that under the heading of the term "wealth" is certainly not very descriptive for many people.

I think your question goes right back to Adam Smith's time, in a way. There was a big controversy at that time as to what you should call wealth. You remember the subtitle of the book is "An Inquiry Into the Nature and Causes of the Wealth of Nations." At that time, wealth meant something very different than it means now. So we are evolving new concepts as we go along. I think your question is a very significant one, and that as we move toward the development and wide use of national balance sheets, we might get a new set of terms, a new set of concepts, and perhaps new usage that would help.

Mr. CURTIS. I am most anxious, of course, as you are, to move forward in this area. I am just trying to keep it in this context.

Mr. Johnson?

Mr. JOHNSON. Congressman Curtis, it occurs to me that we might try some new semantics. Think of two resources, basically. One is the labor resource or the human resource in its aggregate, including its educational attainments, et cetera. And certainly we folks in industry recognize that we have to have skilled and trained people to handle these new technological advances wherever they are. We would hate to try to put some of our telephone equipment in some parts of Africa and operate it before we had trained people to know how to handle it.

So we can think of human resources as one encompassing all of its educational qualifications, et cetera. And the other one as capital resources, investment resources, some such semantic as this, which would include the natural resources of land, et cetera, plus the manufactured capital resources, and we might think of them as two different resources, capital or investment resources, and a human resource.

Mr. CURTIS. I appreciate these comments. I am going to see if I can search—I do not know what semantics to use, except that I really worry about this, having tried, as I say, so many ways to point up this problem.

I will conclude with this observation: I have been trying to point out that money put into education of individuals is really a capital investment. I have been trying to put this concept into tax law. I cannot get it across. This is a capital investment to the individual, even if you have to borrow in order to gain the knowledge from going to school. This is a capital investment well worth the investment. I think the common concept when we are talking about wealth is that we are talking abtuo our well-being in resources, both human and nonhuman.

There has been a great tendency over our history to talk in terms of the tangible wealth. I would include the intangible. I think we need to break through and start talking in terms of the full concept of resources and realize that when we are studying at these hearings, we are talking about one side, one part of this full concept.

Thank you, Mr. Chairman.

Senator PROXMIRE. Thank you, Congressman Curtis.

I think Congressman Curtis' question is a delightful question in view of the panel. After all, when you are talking to two distinguished professors and an outstanding economist, all three of whom have had a great deal of education and are obviously in the intellectual elite, you safely ask them whether intellectual qualities and other human qualities of know-how should be counted as wealth, your response is almost predictable. We had a similar panel yesterday of very able men.

On the other hand, I think we are inclined to press our value judgments in here a little bit. I notice in Webster's Dictionary, the first definition of wealth is obsolete; "weal" or "welfare," and so on.

Then the second definition, "large possessions," collectively, "abundance of things that are objects of human desire, abundance of worldly estate, affluence, riches."

This is the most common attribute of wealth and I think it has been my experience that some of the stupidest people I know have a marvelous knack for making money and they are wealthy. But they do not have some of the other ingredients that go into enduring happiness, stability, making a contribution to society, except that they do have this happy knack.

Then there is an economic definition, in a private sense, "all property that has a money value;" in a public sense, "all material objectives which have economic utility." That comes closer to what Congressman Curtis says.

This last one is right on the button of what he suggests, "those energies, faculties, and habits, directly contributing to make people industrially efficient."

What you are trying to do here, as I understand it, is to conservatively define wealth and to measure wealth on the basis of the finished product of human intelligence and ingenuity and labor; that which is subject to objective arithmetic and not trying to appraise the potential. Is that correct? Would that be much of what you are confined to doing?

Mr. DENISON. I think that is a fair statement, Senator Proxmire. It is not, I think, because anyone even under the Kendrick study group, was not interested in these other things, but this looked like the part that there was some reasonable hope of being able to handle at this time and which would in itself be a tremendous step forward. Evaluations of the—this word "intangible" is an awful nuisance. It would be so convenient if it had not been preempted for money and the like.

Senator PROXMIRE. It is hard for me to conceive of how you are going to measure this innate talent. Maybe when we can get these communications from people a billion light-years out in space who are trying to tell us something in radio waves, we can find out how to do this. But to me, it is almost that far away.

I am going to ask you gentlemen, and you are all young men, I estimate. Yesterday our panel—Mr. Kendrick looks abut 30, but I guess he is about 40. Mr. Creamer looks about 50, but I would estimate he is about 55. You gentlemen are probably in your forties or early fifties. You were not really around as active economists in 1922 when the American Economic Society rejected the studies we had then. One of the problems is that we cannot find any opponents of this proposed wealth census and I think it sharpens the proponents if we can get arguments on the other side, contradicting the proposal you make.

Dr. LAMPMAN. I will start with you. What is it that makes you think the decision that was made by the economic establishment in 1922 should be reversed in 1965 in view of what we have been able to develop in economics in the interim?

Mr. LAMPMAN. Senator Proxmire, I am not well acquainted with the controversy of 1922. As you say, I was not really active at that time. But there were, I recall reading, many holes and many difficulties in the estimates that were put together about that time. There had been in the decennial censuses for a number of decades attempts to collect and put together national wealth estimates.

The questions of valuation were very real problems in 1920 and thereabouts. There were many controversies about confidentiality, even. The country just was not interested in and was not prepared for, I suppose you would say, the kind of wealth inventory that we are talking about now. It was pretty much thought of as a grand census operation, going out in one big interview to find out how much wealth there was in the country.

I suspect, though perhaps other members of the panel can help me out here, I suspect this was one case where statistics gathering was running well ahead of our ability to evaluate data and put them all together into a sensible picture.

Senator PROXMIRE. Do you feel that our statistics gathering has improved sufficiently in the last 40 or 50 years and we are in a position now to make the evaluation accurately and that business is less concerned about confidentiality or that the capacity of the statistics gathering agencies to keep confidence is better established?

Mr. LAMPMAN. That would be my conclusion; yes.

Senator PROXMIRE. Mr. Denison?

Mr. DENISON. I think that is correct. I think also, however, that economists, like everyone else, learn. We have been working with the bad data that we can put together for quite a number of years. I think we have a better appreciation of the possibilities of combining benchmark data for one date, or pieced together for a group of dates, with collateral, sample, or related data that are continuously available to maintain a time series that enables us to get at changes over time, and to do so both in money terms and in real terms. This procedure, which is followed for many of the national income components, makes the data just infinitely more valuable for all sorts of purposes than the old one-time attempts to place a value on the Nation's wealth, and then to do so again 10 years later with valuations at different prices. You really cannot do an awful lot with such material. You can do something with compositional changes and that is about it.

But I think that to supplement Dr. Lampman's answer more directly, the main thing is that we just have learned a lot more—for example, about how to use price indexes to bring valuations into a common mold so that greater comparability is obtained than was dreamed of in 1922, or than the data then available could possibly have permitted.

Having said that, I also want to reinforce what Mr. Johnson said a moment ago; we still need to do an awful lot more with price indexes, but we are not in the complete void that we were in in 1922.

Senator PROXMIRE. Has the experience with national income statistics, which obviously had an impact on policy, been a factor, too?

Mr. DENISON. I think it has, not only in terms of its policy impact, but in terms of the estimating techniques which have been developed. Many of these can be carried over to wealth estimation. And, in fact, some of the information developed in the national income and product series can be used directly in maintaining time series for wealth. But the simple experience obtained in national income estimation, I really think, is very important. I worked in that field myself for quite a number of years, making estimates. One with that experience obtains a feel that one cannot get any other way for what errors of estimate are likely to be, and what techniques are likely to work. You get periodic checks so you do find out whether you were right or wrong—for example, in making preliminary estimates.

I think the same people, or the same type of people, who are working in that area have an enormous amount of ability and knowledge and experience to bring to bear on this problem.

Senator PROXMIRE. Mr. Johnson?

Mr. JOHNSON. My feeling is that we have grown tremendously in sophistication since 1922 in the business world, in the government world, in policymaking in both areas, in appreciation for general economic research. I have to rely again on reading literature, but as I recall it, in 1922, about the only thing that we had, except these periodic wealth inventories, so-called, in the area of current measures was the Federal Reserve Board index. I am not sure the Federal Reserve had prepared their industrial index by that time. We may have had only one or two private ones, like the Cleveland Trust and one or two others.

We have new tools—computers. I agree with you, Congressman Curtis, that if you put garbage in, you get garbage out. But on the other hand, competent people, and we have learned competence, are able to handle a lot more data and have learned to handle in our data gathering many, many more items of statistics. I think probably our tax laws have some impact on our ability to do the wealth project. Many of us in the business world are required to keep different kinds of records now for tax purposes.

Senator PROXMIRE. Do you think the feeling about confidentiality, the resistance for that reason has somewhat lessened?

Mr. JOHNSON. No; I think confidentiality is still as important to the businessman as it has ever been.

Senator PROXMIRE. Would it be your impression that the business community as a whole—you are an economist for Western Electric—do you have any impression that the business community would tend to support this investment of Federal money?

Mr. JOHNSON. From everything I have seen and all whom I have talked with; yes.

Senator PROXMIRE. Would they cheerfully respond, do you think, to the questions? Is there any aspect of this that would be either quite onerous in response or involved, or business information which they may prefer to keep confidential and secret and would not want to share with a Government agency?

Mr. JOHNSON. I think they would be perfectly willing to share it under the Census Bureau's and the Bureau of Labor Statistics concepts of confidentiality, where the individual firms figures are not given to a competitor in the industry or anybody else. If they are aggregated in such a way that the individual firm is disguised, I think you will find that the information probably can be obtained.

Now, it may not work out in the full concept of the wealth study group, but if Census and the Office of Statistical Standards, and I assume these would be the primary Government agencies—I presume that they will go through, as they have before, discussions with people in the business world in the development of their questionnaires—I feel meaningful data can be gotten. They may not give all that some of us might like, but we would be well on the road to starting to get the information many of us think is so vital.

Senator PROXMIRE. Would you feel that some of the smaller companies—I realize that the really small companies would be sampled and it would be a comprehensive study, and it was determined yesterday through many questions that the sampling would be general. But do you think that the smaller concerns for whom providing even the information that they provide now can be quite a burden—you have dealt with that to some extent in your statement—that they might be concerned with extension of the statement to require more information?

Mr. JOHNSON. My own personal feeling is that they will not be.

Senator PROXMIRE. Have you had a chance to talk with other economists in the business community or other business officials about this to any extent?

Mr. JOHNSON. I have talked with a dozen or more economists that were not connected with the study group in one way or another, either on the task force or the main advisory committee.

I think they will not object to furnishing the necessary data.

Senator PROXMIRE. Maybe it would be more realistic if I asked, is there much real resentment, of course, there is always griping everywhere, but is there a very widespread concern about the present amount of questioning by the Census Bureau?

Mr. JOHNSON. I think not by the Census Bureau.

Senator PROXMIRE. Is there for that by the Internal Revenue Service?

Mr. JOHNSON. No; I think it is perhaps more related to the Department of Defense and similar organizations, where we do not quite understand the need for all the data. For instance, recently, I saw a questionnaire on employment and wage policies. It would run something like 11 or 12 pages. By the time we filled it out in Western Electric, it would probably be 100 typewritten pages, because it asked us for each type of job appraisal.

Senator PROXMIRE. This is where you are a defense contractor, however, is that correct, or subcontractor?

Mr. JOHNSON. That is right; allegedly to get some insights into the rates of pay in research and some of us wonder why it is necessary to have knowledge about all types of wages and job analysis work that is done. We have six different categories of systems—engineers, computer programers, management, professionals, clerks, and operatives.

Senator PROXMIRE. But your impression is that these questions would be relatively so simple and limited that the burden would be far briefer and the complaints would be relatively few?

Mr. JOHNSON. Senator, I would like to add one other thing. I think environments change and I think this has changed rapidly, perhaps in the last 5 years, the increasing number of planning staffs that medium-sized to large businesses are putting on to study these very kinds of problems that these data would be helpful to. Out of this has grown two professional and quasi-professional organizations, if you will—the Operations Research Society of America and the Institute of Management Sciences. There is an increasing interest, I believe, throughout the business world in the kind of information that will be developed.

Senator PROXMIRE. Let me ask, because I want to come to Mr. Lampman and Mr. Denison in a minute, but let me ask you as a business spokesman, what business policies could be significantly affected by this kind of information? Just the other day, there was an article in the paper about the tremendous amount of information now available by the Department of Commerce, but business was largely failing to use it all, especially small independent businesses. Here is a large amount of information the Government is spending millions of dollars to collect. It is going to impose a light burden, but a burden, on businessmen to provide. How can business policy be made more efficient on the basis of this information?

Mr. JOHNSON. Let me talk first to the matter of demand. This will give us some insights in the capital output ratios. What kind of capital is required in various industries to produce goods?

Senator PROXMIRE. How much of that do you have now?

Mr. JOHNSON. Practically none on an industry basis and very little on a total aggregate basis. We have the Goldsmith studies and others.

Senator PROXMIRE. In the Western Electric Co., would you not have a pretty good idea of what the capital output ratio is?

Mr. JOHNSON. In the Western Electric Co., I would. In the Bell Telephone operating companies, I would. And I can corral this information.

Senator PROXMIRE. But you would not be able to compare that with industry generally and you feel in many industries, they do not have it?

Mr. JOHNSON. That is right and I could not make a comparison in this industry on a four-digit basis with other producers of so-called communications equipment or wire and cable. I would not know whether our capital output ratios are favorable or unfavorable against the industry as it exists.

Now, if you take some other industries, where there are many more companies, then one company does not know whether his capital output ratios are comparable to the aggregate for the industry. He will never know what the individual other companies' situations may be, but he would know for the aggregate. He does not have any concept now. By and large he has only productivity figures on a labor input basis. Output related to labor input.

Mr. CURTIS. Would the chairman yield?

Senator PROXMIRE. Let me yield to Congressman Curtis.

Mr. CURTIS. I have seen figures. In fact, I have followed them with great increase. Figures show that around $22,000 of capital is required to create a new job. Then I have seen it broken down by industry. The chemical field is probably the highest, from $40,000 to $50,000 per job. I remember, going on down to tax groups of around $12,000 per employee. Are there not any of these figures?

Mr. JOHNSON. There are these kinds of figures. Personally, I have no knowledge of how good they are.

Mr. CURTIS. I see.

Mr. JOHNSON. I have used them myself for comparative purposes.

Senator PROXMIRE. At any rate, these figures are not the authoritative determinations by a Government agency on which there is a general industry reliance. You feel you can get that from this kind of census?

Mr. JOHNSON. I think it could be gotten. The first time around, you may not get it.

Senator PROXMIRE. This would serve as a kind of signal to business whether their operations are efficient or inefficient?

Mr. JOHNSON. To me, it would.

Senator PROXMIRE. Would it also serve as somewhat of a guide to investors and others to determine whether industry has been efficient?

Mr. JOHNSON. I would think so.

Senator PROXMIRE. How about comparing it on a basis of time? As you found the return, et cetera, is increasing or decreasing, that might be valuable, too?

Mr. JOHNSON. I think this would also be valuable information. We now have it, of course—rate of return in the regulated industries.

Senator PROXMIRE. This is the kind of thing that any good investment manager really specializes in now. The people who advise investors spend their lifetime calculating what the return on capital is and examining the whole spectrum of business throughout the country. Precisely, how would this additional information give more accurate and widespread information?

Mr. JOHNSON. One, Senator, it would be more valid data that we would have. Two, we would know that the data was manipulated with a consistent formulation by the group that is going to put it into current prices or into depreciated values. As it is now, depreciation policies change. There is not enough information to get a current price relationship except vaguely when you look at an annual report of a company or annual aggregate figures of an industry. You do not know the distribution of these assets by acquisition time so that you can bring them to a current-value basis.

Senator PROXMIRE. You think that on the basis of this, there are some mistaken policies now, because the information is not in all cases accurate or complete, that business is perhaps making inefficient investments, failing to make investments that they ought to make, that those persons with investments to make are not basing their judgments on the kind of authoritative and useful information that this study will give them?

Mr. JOHNSON. I think it will improve their decisionmaking ability.

Senator PROXMIRE. Now, how about—I would like to extend this, with the sufferance of Congressman Curtis, to the Government sector. I would like to ask Mr. Denison first and then Mr. Lampman.

Just how do these statistics affect congressional policy, say, No. 1, on taxes? That was discussed to some extent yesterday and you mentioned investment credit.

Mr. DENISON. Yes, I did.

Senator PROXMIRE. Can you think of other areas where this information might be useful?

Mr. DENISON. It seems to me, Senator Proxmire, that every time there is a tax bill up, and I am not thinking now about the general level of taxes but the distribution of the tax burden among individuals and firms, one of the major questions always raised concerns the effect on investment and on the growth of the capital stock. Presumably, this is for the reason that it is believed that this has an important effect on national income and on the welfare of the people.

Now, as nearly as I could appraise this tax credit proposal, for example, this was strictly the reason. There certainly was no equity ground for giving tax credits to business. The argument had to be that it would stimulate investment, increase the growth of the capital stock, and thereby raise the national income.

Now, my statement was that with the present state of knowledge, you gentlemen just are not going to have any accurate idea of whether the capital stock is rising faster with the tax credit than it was without it, nor any real ability to appraise what this did achieve.

Now, I am not saying just the numbers will give the answer.

Senator PROXMIRE. Take the study you said you are making of the several European countries, some of which have something like an investment credit. Compare their rate of growth with our rate of growth in the absence of an investment credit and come to the conclusion that the measurement of rate of growth would be far better if it were based on accurate statistics as to capital base. Is that correct?

Mr. DENISON. It is not that the measurement of the rate of growth of national income itself would be better. But if one is trying to analyze why the Germans, for example, had a growth rate of about 7 percent over this period, we had one of somewhat over 3, and the British a little less, certainly one of the things one must study is what has happened to the capital stocks of these countries, what part this has played.

Senator PROXMIRE. Then you have to evaluate that in terms of the terrific difference in the reconstruction of Germany, on the one hand, which had been devastated and was rebuilding its whole economy——

Mr. DENISON. Oh, yes.

Senator PROXMIRE (continuing). And the United States, which was at a very high level. Since then, we have greatly improved or grown.

Mr. DENISON. I am not trying here to give a detailed analysis.

Senator PROXMIRE. We understand.

Mr. DENISON. I am saying this is one of the things.

Senator PROXMIRE. Both Congressman Curtis and I voted against the investment credit.

Mr. CURTIS. This illustrates exactly what I am concerned about. You come along and say this is wealth and you give a tax credit for investment in this kind of capital. Maybe more emphasis is needed on investment in training. What I tried to do in my bill was to include in investment and capital the distributive and service industries, which are so essential. That is where the main growth is occurring, not just in manufacturing. However, the investment credit is based upon physical assets, those that have a depreciation schedule, the most foolish thing, I think, that we ever did. This is only a part of wealth.

I am anxious for these studies and the development of these statistics to go forward, but I don't want them to go forward if they are going to be used by the aggregate economists—the macroeconomists—to make policies of this nature. They have used the semantics that this is wealth or that this is the way you produce more economic growth because you have to get more investment. Yes, you need it in investment; but investment in what? Training people or in more physical plants and more depreciable assets? This is the danger I see when you take something that is valuable and use it for more than it really is designed to measure. There already have been suggestions made yesterday in the policy field on taxes. I would hate to see us start using this material in this way, for the reasons which I have tried to express. But I am glad this colloquy occurred, because perhaps I can get across my concern lest we say we are measuring wealth when we are only measuring a part of it.

Mr. DENISON. There may well be a semantic problem here that needs some attention, Congressman Curtis. I am not concerned about this from the standpoint of the professional economists, because we are looking for information, as I am sure you are, that enables us to somehow disentangle all these factors that are affecting the growth rate of the country and the national economy and affecting stabilization. It is really impossible, in my opinion, to look at one factor without looking at all of them. It just so happens that capital stock, or whatever term we may want to attach to this thing, is one of the important ingredients.

I am sure you would agree with me that we have to move along a wide number of fronts; that is to say, we are not going to have a rapidly growing economy unless we do reasonably well both in the human field and in this capital field.

Mr. CURTIS. I will try this and then move to another field to illustrate again, because this has been developed more. In the field of education itself, serving as I do on the board of trustees of one of our, I think, eminent institutions, the question always is, How much money should we put into brick and mortar? Fortunately our board decided that we will put it into our faculty. The brick and mortar will come. Indeed, it has proved to be so, that if we put what moneys we could raise directly into faculties' salaries to try to develop these talents, then whatever these men needed in the way of physical equipment, whether it was buildings or machinery or what, seemed to come along. But this is a way of illustrating, perhaps, the relationship between the physical and the other. I am afraid now I might be misinterpreted as believing that I do not think it is important to do what you are advocating. I do. I think it is very important. But I am so concerned about people taking one part of it, as they did in investment tax credit. I did about everything I was able to do in arguing against this, pointing out that they were measuring the one part of investment that we did not need to emphasize, and thus shoving back into the background the area that we did need to emphasize. If we are to develop these statistics and keep calling it wealth, we create a general impression among Congressmen and others that this is what it was. This could be a disservice. Just as Mr. Johnson said in his paper, official statistics, referring to productivity and analysis underlying this, official statistics available on a regular basis are limited in their usefulness and for some purposes actually misleading.

This is what I wanted to emphasize as best I can in these hearings.

Senator PROXMIRE. I would like to say at this point that I think Congressman Curtis is making a very helpful contribution in hammering away at what we are talking about in terms of wealth.

I notice on page 203 of the Kendrick report, we have this short paragraph, about halfway down:

> The censuses of wealth were not made on the basis of a clearly thought out concept of wealth based on a consistent objective of what would be measured, and for what purpose. This lack is a fundamental fault, and it should provide a lesson for future wealth estimations. It accounts for most of the inaccuracies found in the evaluations and for the lack of meaning and suitable classifications.

I think that you gentlemen and Dr. Kendrick and the others who have appeared, Dr. Creamer, are pretty well agreed. I think that as far as I am concerned, the important thing is not what you agree on as the definition of wealth, although I think you can make it specific and tangible, but that Congress and the economic profession and business generally understand as much as possible what you are talking about, how limited it is, and how specific and tangible and definite it is. If that can be done, it is a most helpful interpretation.

Let me proceed a little on this tax information question.

Mr. Denison, you did not mean to imply that only on something like investment credit would this be useful? It could also be useful in determining the wisdom or unwisdom of reducing the income tax, the wisdom or unwisdom of even the elimination of excise taxes?

Mr. DENISON. That is correct.

Senator PROXMIRE. How, for example, could we use information of this kind if we had it this year with regard to the excise tax?

Mr. DENISON. This, I think, comes back to the question of distribution of the tax burden. I am not suggesting that wealth data this year will be particularly helpful in deciding whether there should be a tax reduction or not. But if there is to be a tax reduction, then one has to have some criteria for what taxes should be cut.

Now, what I am suggesting is simply this. The starting point for distribution of the tax burden, in my opinion, has always been one of equity. One could discuss what equity is, but one departs from it for some specific reason—because you want to subsidize some industry or because you feel that we need to stimulate or discourage some type of expenditure or activity, or give special help to some particular group, through some special provision of the income tax, imposition of a sales tax, or through any other sort of special tax provision.

Now, this is certainly true today. If you are going to give away some Government revenue, you could cut excise taxes or do any number of other things. What I am suggesting is that for a wise choice we have to know more about how the economy operates. One of the things we must know more about, both for cyclical purposes and for growth purposes, is the capital stock. I am sorry that my answer cannot be real specific. It cannot be, because everything is interrelated in this economy and this is just one aspect.

Senator PROXMIRE. Maybe we should shift to a capital stock study instead of a wealth study.

Mr. DENISON. Could I just interject one small comment concerning the earlier discussion of the amount of capital required per worker? I did recall Emerson Schmidt's statement on page 167 of the Kendrick study. Schmidt refers to the chamber of commerce putting out such numbers, and he states:

> While fairly precise information is available for some industries, overall figures are inadequate and it would be useful to have accurate information, say on a quinquennial basis.

Senator PROXMIRE. I wanted to ask you about the spending aspect, but go ahead on this, too.

Mr. LAMPMAN. I think the key word in the topical or semantic field here is balance. We are talking about national balance sheets. I think it is important in a number of ways; that is, additional information about tangible and intangible wealth will help to balance up our whole view of the way the economy operates and the way it is structured. It will give us another dimension, another look at this very complicated machinery we have, the growing and changing machinery of the national economy.

In a couple of ways, it adds information we cannot otherwise have in evaluating, say, a business decision or a decision about regulating an industry or a decision about tax policy. It adds, first of all, to what you have in the way of current income information. It adds a comparative look at the history of the company, an industry, or a history of a sector of the economy in looking at it. It tells you about their past accumulations and tells you about their current success.

In evaluating an income tax or investment tax credit, it is often just as important to know about the wealth that someone has, their tangible or intangible wealth holdings, as it is to know about their current profit situation or their current wage-income situation. So I think it helps to balance up our whole view of what is the subject of economics in that way.

Then finally, I would like to add that I think it helps us to get a balanced view of such a question, say, as an overall tax cut. If we put all of our emphasis on what will happen to the national debt, or if, in thinking about credit policy, we think only about the increases in consumer debt, we have a very unbalanced view of what is going on. We should also think about the asset side of the balance sheet, what is happening to the assets of the country or the assets of the consumers. So, again, the term "balance" is what we need. I think that is the thing that makes this such an appealing project to many teachers, as well as to many practicing economists. It is interesting that in the elementary economics textbooks of the country, at this time, there is not any national balance sheet being presented. Students have no early introduction to the concept that there is such a thing as national wealth. I think it is an odd, an imbalanced approach to the economy, really.

Senator PROXMIRE. Dr. Lampman, you, of course, have a national reputation for your concern or at least your fine books on the subject. You wrote the paper about "The Low Income Population and Economics." You wrote it into your book. I suppose as much as or probably more than any other intellectual leader in America, you can be said to be responsible for the poverty program, at least for its genesis. In view of your concern here, what usefulness do you think this will have with regard to Federal spending programs? I think Congressman Curtis has given an understanding that if we are not going to be able to evaluate the contribution skills have made, will this be of real value to us in determining as wise as possible a policy of Federal spending?

Mr. LAMPMAN. Senator, I think it will. But I must say I base it all on a general faith that more knowledge is better than less. I believe I sensed in some of the things Congressman Curtis was saying a greater fear that if we knew a little more about the economy, then we might make the wrong judgment concerning it. It sometimes does happen that additional information leads people down the wrong track. That is why I would like to emphasize this word "balance." The additional information should be thought of as expanding our range of information. We now have only limited information. If we had more information about all types of national resources and more information, for example, about the liabilities that people have as well as the assets that they have, and so on, we would be in a better position to appraise the need for, say, a Federal effort on the poverty front or for new educational subsidy or encouragement.

Senator PROXMIRE. But you do not see any specific, direct connection between getting this additional wealth information and Federal spending programs? Except that it is useful in terms of considering options to have as much information possible.

Mr. LAMPMAN. Yes; I might say one example on this is in the field of social security. There is a great deal of discussion about how much capital or wealth is held by the aged or by, say, the next generation of aged that is coming up. How much do they own in the way of home equities, how much do they have in the way of pension rights, aside from social security.

Senator PROXMIRE. You do not have statistics on that now?

Mr. LAMPMAN. We have scattered data. I would think one of the products of a continuing effort to develop national balance sheets would be to get a more regular and more comparable basis among studies for consideration of personal sector wealth, for household sector wealth, as it is referred to in this report.

Senator PROXMIRE. So this would give us a more balanced and a more comprehensive picture of the inadequacies of income—where it is inadequate—because it would also give us a more precise and comprehensive picture of how our wealth is building.

In your study, which is probably as comprehensive as any that are made of low income, do you find there is a dearth of statistics on property holdings of people with low incomes?

Mr. LAMPMAN. Yes. The study which was published by the Joint Economic Committee in 1959 encountered the difficulty that there were no nationwide survey data that could be linked directly into the census income studies, no nationwide studies on wealth or household assets and liabilities that was easily comparable.

Since 1959, there have been some—and I think very valuable—attempts to measure personal wealth distribution and with attention given to the low-income end. I think we need more of that kind of study.

Senator PROXMIRE. Let me ask you three economists. I do not want to detain you too long. I have detained you a long time already and your contributions have been very helpful. Let me throw out three more areas where we need more information and ask you whether or not you think it is significant. One is monetary policy. Two is wage-price policy. Three is the area of balance of payments.

Mr. Lampman, as long as you are responding?

Mr. LAMPMAN. Your question concerning those was whether this kind of information——

Senator PROXMIRE. Whether it would be of significance—of significant help in these three areas.

Mr. LAMPMAN. Yes; I think it very definitely would be of help.

Senator PROXMIR. Whether it would be of significance—of significance?

Mr. LAMPMAN. In the monetary area, for example, we are often concerned about the effects of additional borrowing on the rate of interest and what effect that would have on various types of business operations, various classes of consumers. If we knew about not only the physical assets held by businesses and by households, but also if we knew about their financial assets and liabilities, then we would be in a good position to appraise the effect of a monetary policy change.

In the wage-price field, we would have better basis for judging the rate of return or the need for price change that may occur from time to time, looking at one industry as opposed to another.

Senator PROXMIRE. I suppose you could say that on wages, this census might provide information that would be useful in terms of what anyone would need in the way of a wage increase, the need for, say, a minimum wage increase.

Mr. LAMPMAN. There might be something in that. Right off, I do not see a way to use these data for that purpose.

On the balance-of-payments side, the balance of payments is another one of these flow concepts; that is, it talks about what happened during the year. The national balance sheet would give you a look at the stock of foreign-held assets and of American investment abroad on a cumulative basis. That would give you another look at the meaningfulness of a balance-of-payments deficit or surplus.

Senator PROXMIRE. Thank you, very much.

Mr. Johnson?

Mr. JOHNSON. I have a feeling that it would be helpful in monetary policy. I attempted to avoid monetary policy and fiscal policy in my paper. But it strikes me that we only have to look at the record of 1955–57 and 1957–60 in the capital goods area expansion of 1955–57, I believe had there been both wealth inventory information and some ability to use such figures, we might not have had an overexpansion, pretty generally, of plant, by the private decisionmakers. I think it would have been helpful in avoiding that. The best records we have indicate that perhaps we had 20 to 25 percent surplus capacity in manufacturing as we came out of that splurge.

This, then, left a period to absorb this inventory of excess capacity and we had a period from 1958 to, roughly, 1961 before we got back toward the flash point of new plant expansion. I think this kind of information could have helped, perhaps, in monetary and fiscal policy during that period. I have a feeling that it would be that way.

On the wage-price problem, I think that this kind of information as Dr. Lampman has pointed out, could be helpful in rate of return analysis. I think this would help in the private sector in the allocation of financial resources if we had this kind of rate of return. We might find that automatically, the financial market would put some restraints on corporations when they attempted to raise money.

I note in this morning's paper that the corporate bond market is in a little trouble today and yesterday on allocation of funds. If they had better information on rate of return, it would make the marketplace a more efficient allocator of funds via the rate of return on investment by industries.

On the balance-of-payments problem, if, as Dr. Denison has indicated, we can get on with some international studies, we may find that capital allocations in other countries and capital versus labor allocations and skilled labor, et cetera, are different. We may get some insights that will help us become more competitive in international markets. By no means do I want to imply that I think that the physical volume of goods and services portion of our balance of payments can solve the whole balance-of-payments problems. I think there are other problems in the purely intangible financial area. But it might be of assistance in indicating where others have found that they can get more output with less capital, or they use a different mix of capital and labor. I am finding that business concerns are studying this matter of allocations of capital resources between various activities much more sophisticated than they have before. I think these wealth inventories will help.

Senator PROXMIRE. Mr. Denison?

Mr. DENISON. Most of what I might have said has been said. With respect to the balance of payments, I think it might be noted on the statistical side that the same types of information that are needed for this sector of the national balance sheets are really very much the same sorts of information that also would be needed to improve the balance-of-payments data. I think both this report and the Bernstein report share a joint interest in that part of the statistics.

On the more general problem, I think that wealth data would be helpful if we do have to take actions to influence the balance of payments in deciding what actions to take.

On wage price policy——

Senator PROXMIRE. Let me ask on the balance of payments, has either Mr. Lederer or Mr. Bernstein, in Mr. Bernstein's very comprehensive report, to your knowledge indicated anything that would suggest that this kind of information would be useful or necessarily deirable?

Bernstein's report is so detailed and comprehensive—we had hearings on it about 3 or 4 weeks ago and are going to continue hearings next week on it.

Mr. DENISON. I guess I cannot answer the question directly, except by saying that I would be absolutely astounded if it did not call for the same types of information. I think it is impossible that it would not, because that is the nature of the statistical setup.

Mention of wage-price policy calls to mind the guidelines. The guidelines really stem from a historical observation, it seems to me. That historical observation is that over considerable periods of time, there has been very litle change in the division of national income between compensation of employees and other types of income. Other types of income include profits. To really examine the basis for the guidelines it would be desirable to have beter profits data, which means better depreciation data, and data that are comparable overtime. This also has relevance to rate of return analysis. The wealth study would contribute to the numerator of the rate of return calculation, by improving earnings estimates, as well as provide the denominator, which is the value of the capital stock.

On monetary policy, I think there is not much I need to say, because a very large part of this whole report calls for improvement of types of data which are being used now in conducting monetary policy.

Senator PROXMIRE. Before I let you go, I have one final question of Mr. Johnson. You say the lack of order of magnitude data on cost prevents meaningful discussion on the feasible degree of detail and actually requires that your endorsement of the project be a conditional one.

Now, tomorrow, we are going to have Mr. Raymond T. Bowman, Mr. Morris H. Hansen, and Mr. Morris R. Goldman, and if anybody can give us answers on costs, it seems to me they ought to be in a position to do it.

Can you give us any guidelines so we will know how to evaluate what they can tell us and we can ask them some questions to bring out some assessment of how far we can go on this wealth census. There is no question we will move with it, but there is some question as to how far we should push the Bureau of the Budget to spend on it.

Mr. JOHNSON. Senator Proxmire, I do not believe I have competence to answer that question.

Senator PROXMIRE. The reason I ask is because you say that because you do not have any costs, you have to make your endorsement conditional. Suppose you did have. How would you evaluate it? Supposing the costs were, say $5 million, $10 million, $30 million? You know.

Mr. JOHNSON. I would attempt to move into the whole statistical program and see if in my personal value judgments, I would allocate $5 million to this rather than $5 million to a job vacancy study or $5 million to improving the consumer price index or any of the agricultural statistics, et cetera. I think we have to get a judgment value on priority of allocation of whatever funds can be allocated.

Senator PROXMIRE. You are not taking the position that you should not spend any more on Government statistics; are you?

Mr. JOHNSON. No; I am not.

Senator PROXMIRE. So another alternative would be that you might spend whatever additional sums would be on this, because all information is helpful in gathering statistics?

Mr. JOHNSON. Yes. I would want to see the order of magnitude—say $5 million. I probably would not wince at that, but if you slip a decimal point and make it $50 million, I would have considerable concern. If it were a half million dollars, I certainly would have no concern. We do not find this order of magnitude costs and I think, as you say, the agencies who will be here tomorrow in your hearings certainly can give far better information than I can.

Senator PROXMIRE. As far as I am concerned, you are saying if it is half a million dollars, go ahead, if it is $5 million, you might think about it, and $50 million, you would have to look around and see how far you should go.

Mr. JOHNSON. I think those are very crude order-of-magnitude guesses.

Senator PROXMIRE. Gentlemen, thank you, very much. I have enjoyed this and learned a lot. I think you have made a very excellent record this morning. I deeply appreciate it.

The committee will recess until 10 o'clock tomorrow morning and we will hear from Director Bowman, Associate Director Goldman, and Assistant Director Hansen.

(Whereupon, at 12:05 p.m., the hearing adjourned, to reconvene at 10 a.m., Thursday, June 3, 1965.)

MEASURING THE NATION'S WEALTH

THURSDAY, JUNE 3, 1965

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMIC STATISTICS
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 1202, New Senate Office Building, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senators Proxmire and Miller.

Also present: James W. Knowles, executive director; Gerald A. Pollack, staff economist; Donald A. Webster, minority economist; and Hamilton D. Gewehr, administrative clerk.

Senator PROXMIRE. The subcommittee will come to order.

This is the third and concluding morning of these hearings by the Subcommittee on Economic Statistics on the general subject of "Measuring the Nation's Wealth." This morning we will hear from representatives of the Government agencies primarily concerned with this program who are prepared to present the views of the executive agencies as to the conclusions and recommendations of the wealth inventory planning study, and to outline the next steps which the executive branch proposes in this area.

Our first witness, Dr. Raymond T. Bowman, is Assistant Director for Statistical Standards of the Bureau of the Budget. Dr. Bowman and his associates are responsible for the overall supervision and coordination of the Federal statistical system, and in this capacity will outline for us the overall position of the executive branch on these matters. He will be followed by Mr. Morris R. Goldman, Associate Director of the Office of Business Economics in the Department of Commerce, and Mr. Morris H. Hansen, Assistant Director for Research and Development of the Bureau of the Census, also in the Department of Commerce which, we understand, will have key roles in any program for measuring the Nation's wealth.

The subcommittee also invited other Government agencies that are concerned with this subject either to be represented at this hearing or to submit statements for the record. So far we have in hand for incorporation in the record a statement of the U.S. Department of Agriculture which will be published at an appropriate point in today's record.

I think this is an appropriate point.

(The statement referred to follows:)

STATEMENT SUBMITTED BY THE U.S. DEPARTMENT OF AGRICULTURE

The proposed compilation of wealth data presented along the lines indicated in the report would constitute a major addition to our tools of economic analysis.

The information on agricultural wealth as described in the report would be of considerable value in several phases of the Department's research work dealing with relationships within the agricultural sector. For example, there is need to develop balance sheets for different groupings of farms, and to relate changes in the balance sheet components to the flow of farm income and other receipts and outflows from the agricultural sector. There is need also to develop better methods of calculating rates of return on farm real estate. This latter statistic is especially important at present when the demand for farmland to enlarge existing farms is so strong, and farmland values are rising continuously.

The wealth inventory series would be highly useful also in measuring the relationships between agriculture and the other sectors—particularly since wealth of the agricultural sector is a substantial part of the Nation's total wealth—and in determining the returns to farmers for their capital and labor as compared with those of other persons and businesses in the economy.

The recommendations that apply particularly to agriculture have been classified into three groups. Those recommendations in group I can probably be initiated without much delay. Those in group II and in group III are more difficult to accomplish.

Several of these recommendations can be implemented, in part at least, by exploiting other research work and surveys now in progress. Thus, the data collected in a pesticides survey, now being conducted by the Department, will permit some improvements to be made in the "financial assets" component of the balance sheet and important progress in developing balance sheets by economic class of farm. The 1960 Sample Survey of Agriculture permitted a major improvement in certain debt data. Other surveys undoubtedly will contribute to further accomplishments along these lines.

I. The recommendations that probably can be accomplished with little difficulty are the following:

1. Greater detail be shown in the "off farm" component of farm income estimates so that "income from secondary sources associated with the same land and buildings that is used to produce farm products" can be identified. Then the appropriate income figures would be available, as desired, for comparisons with estimates of farm wealth, in calculating rates of return.

2. Improvements in the balance sheet of agriculture:

(1) To exclude Commodity Credit Corporation loans from farm liabilities, and to exclude the related crops from the balance sheet assets. This would improve the comparability of concepts in the balance sheet with those concepts underlying the farm income calculations.

(2) The value of household furnishings and equipment (like the value of farm homes) now shown as a balance sheet asset, would be transferred out of the agricultural sector (in these and similar other recommended regroupings, separate detail would be maintained so that alternative arrangements of the data could be made as desired).

II. The followings recommendations would involve more difficulty to accomplish, particularly if the aim is to accomplish them in a relatively short time:

1. Performing the conceptual, analytical, and statistical work needed for calculation of constant dollar values for farm real estate. To meet the goals of the overall project, constant dollar values of all physical wealth as well as current values are needed; difficulty measurement as well as conceptual problems are involved in developing these data for farmland.

2. "Value of all residences on census farms should be transferred (out of farmland and buildings) to the household sector" (in calculations).

3. Financial assets and claims associated with the farm household would be transferred out of the agricultural sector.

4. Obtaining additional information on the lessors of agricultural wealth of landlords—largely land—so that they could be separated between farm landlords (whose wealth would be left in the agricultural sector) and nonfarm landlords (whose agriculturally used wealth would be considered as being owned by the real estate industry).

5. To prepare at the regional level a variety of balance sheets of agriculture as follows:

(1) Operators of census farms showing:
(*a*) Production and consumption items separately.
(*b*) Owned and rented assets separately.
(*c*) Four groupings of economic classes of farms separately.

III. Substantial difficulties would be involved (and these will be progressively larger as the geographic coverage is increased) to accomplish these recommendations:

1. That the goal be to present the major part of the wealth data on a State basis * * * and for four economic classes of farms.

2. Collection of data on farm machinery to permit State value estimates.

3. Collection of data showing * * * financial assets by regions.

4. A survey of the agricultural service industry to permit estimates of this component of wealth used in production of farm products.

BOARD OF GOVERNORS,
OF THE FEDERAL RESERVE SYSTEM,
Washington, D.C., June 3, 1965.

Mr. JAMES W. KNOWLES,
Executive Director, Joint Economic Committee,
New Senate Office Building, Washington, D.C.

DEAR JIM: Let me reaffirm my endorsement of the recommendations of the advisory committee to the wealth inventory planning study. Increasing analytic emphasis is being placed these days on stocks of wealth as a variable influencing economic behavior, and the lack of accurate and consistent wealth data is a serious constraint on such analyses. Information is needed not only in terms of aggregates for the country as a whole, but also for major economic sectors and major categories of wealth as well; to serve the widest range of analysis, these measures should cover financial as well as tangible wealth. I hope the Government's statistical program can develop in such a way as to provide these sorely needed economic data.

As you know, the Federal Reserve's research program is already filling part of the gap. We are just now completing surveys of consumers' financial behavior in which detailed information was compiled on consumer assets and liabilities. The data are now being processed, and when available should contribute significantly to understanding the influence of wealth on consumer saving and spending. Federal statistical efforts directed at the development or improvement of comparable measures for other sectors of the economy would be highly desirable.

Very truly yours,

DANIEL H. BRILL,
Director, Division of Research and Statistics.

Senator PROXMIRE. Dr. Bowman, you may proceed with your statement.

STATEMENT OF RAYMOND T. BOWMAN, ASSISTANT DIRECTOR FOR STATISTICAL STANDARDS, BUREAU OF THE BUDGET

Mr. BOWMAN. Thank you, Senator Proxmire.

I am extremely grateful for this opportunity to appear before this committee regarding the usefulness of more and better data on the Nation's wealth. In the context in which I am using the term "wealth," I mean the stock of tangible durable assets supporting production or consumption. For some purposes it would be desirable to add to this concept of wealth the intangible assets resulting from investment in human beings.

The wealth inventory planning study has provided an important review of the conceptual and many of the practical problems to be faced in obtaining such data for the United States and has made recommendations on the scope and detail that should be considered.

The present task of the Federal statistical program is to explore these matters in terms of the practical ways of collecting valid data and providing appropriate estimates. We are now undertaking to do this. The aim is to establish comprehensive data which would show the composition of the Nation's wealth and its changes over time as a part of a general national economic accounting framework.

My statement attempts three things:

First, it considers the need for greater emphasis on wealth information;

Second, it indicates our present position on wealth data within an evolving Federal statistics program; and

Third, it states what we are now doing and expect to do to develop improved wealth data.

NEED FOR BETTER DATA ON WEALTH

The increasing emphasis on wealth data is related to specific analytical needs of the post-World War II period and also to a clearer general recognition of the importance of stocks as well as flows for the more precise economic analysis of many problems. Some of the most basic problems of economic policy in the period since the war have required for their analyses better information on capital stock. I note several very briefly.

The accumulation of financial liquid assets and the depletion of the stock of real assets during the war were very significant for the early post-World War II period. It is probably fair to say that if we had had a comprehensive accounting of capital stock and of the financial assets of business and consumers, the postwar economic projections would have been considerably better.

In recent years, increased interest in economic growth, both here and abroad, heightened considerably an interest in the underlying sources of differential growth rates. The deficiency of data on capital stock for such inquiry was clearly apparent.

For many years, fluctuations over time in investment by consumers and by business have been of critical importance for stable growth and have been examined intensively. Such studies have increasingly been hampered by the lack of adequate data on capital stock. Particularly in the analysis of business investment, an understanding of relationships between the existing capital stock and its actual and capacity output is basic.

The longstanding interest in labor productivity analysis—partly to explain economic growth, but also to examine price and cost relationships—has also emphasized the need for better information on capital stocks and changes in their accumulation.

Finally, I would mention the problem of balance of payments in which U.S. capital investment abroad as distinct from investment in the United States has been highlighted as a key variable for study and policy. Here again there is a critical need for better information on the way in which the stock of wealth is allocated among the industrial sectors, as well as on its ownership and rate of return.

It is not my intention to imply by these illustrations from the relatively recent past that interest in wealth is not of long standing. This interest considerably predates the postwar period. It is, of course, not necessary to remind this committee of the classic work of Senator Douglas which even at the present time provides a framework for much of the thinking about analysis of the relatonship between labor and capital in explaining changes in production.

In view of these important problems which have continued to call attention to the need for data on capital stock, how is it that a reliable inventory of the Nation's wealth is still essentially lacking today? This question seems all the more pertinent when we recall that there was along period when collection of wealth data represented a significant if not a leading source of information on our economic development. I refer to the period from 1850 through 1922, when data on wealth were prepared by the Bureau of the Census. After 1922, this effort was largely abandoned.

Collection or estimation of these data by the Census Bureau [1] was abandoned ostensibly because of the belief by Bureau officials that the data could not be collected without serious error or excessive cost.

Many of the problems observed at that time, particularly the difficulty of arriving at a clear basis of market valuation of capital stock, persist to the present day. But statistical procedures have come a

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[1] Estimated National Wealth, compiled as part of the Decennial Report on Wealth, Public Debt, and Taxation, Department of Commerce, U.S. Bureau of the Census, Washington, 1924.

long way since 1922. The development of our national accounts, availability of extended time series on capital expenditures which permit perpetual inventory methods, improved price indexes, and renewed interest in and work on estimating wealth and capacity, should by now have provided a firmer ground for planning new pilot and feasibility work. It is imperative that we reexamine our ability to resume collection of data on wealth, particularly survey data at decade intervals. This is required to establish valid benchmarks for our current estimates and additional knowledge of other critical aspects; such as, age and geographic distribution of the wealth stock.

THE PRESENT POSITION OF WEALTH DATA WITHIN AN EVOLVING AND BETTER INTEGRATED FEDERAL STATISTICS PROGRAM

It is now some 7½ years since I appeared before this committee on the occasion of the completion of the report of the National Accounts Review Committee.[2]

This report envisioned a long-range program regarding the U.S. economic accounting systems. The developments which might eventually provide comprehensive and usefully detailed data on the Nation's wealth should be viewed in the context of this long-range program of national accounting designed for economic analysis.

One of the most important recommendations of the NARC report was that five main elements should be integrated into a consistent accounting framework. These five elements include income and product; interindustry purchases and sales (input-output); balance of payments; flow of funds; and national and sector balance sheets.

We are today still some considerable distance away from such a fully integrated system, but the availability of comprehensive data on tangible capital stock would be a major step forward in this program. Such a development could considerably advance the needed integration of data on savings and investment in the income and product accounts of the Department of Commerce with the corresponding information in the flow-of-funds data now prepared by the Federal Reserve Board. Also the data on tangible capital stock would ultimately be integrated with data on financial assets and debt into the framework of national and sector balance sheets.

Since the completion of the National Accounts Review Committee report a number of developments have occurred in our accounts which have substantially improved our ability to describe and understand economic developments and which have brought economic accounting of the real and monetary aspects into somewhat closer integration. I would like to highlight two examples. These are:

(1) The expanded development of gross national product figures in constant prices.

(2) The development of an input-output table completely integrated with the GNP accounts.

The constant dollar figures provide a basis for comparing real output and important inputs; such as, employment and capital in order

[2] "The National Economic Accounts of the United States." A report to the Office of Statistical Standards, Bureau of the Budget, by the National Accounts Review Committee of the National Bureau of Economic Research. Published by the Subcommittee on Economic Statistics of the Joint Economic Committee, with hearings, Washington, 1957.

to measure changes in output per unit of input—often called productivity analysis. The input-output table, among other things, reveals the links between output and inputs, in the context of interindustry purchases and sales. Such an input-output arrangement makes it possible to measure the impact of a change in the final demand for one product on the output of each industry. It is not restricted to the direct effect on the industry producing the product with the increased demand but permits estimates of the combined direct and indirect effects.

The 1958 table just completed does this for some 86 industries. Similar tables for each industrial census year: 1963, 1967, 1972, et cetera, and for a middle year between such census years, will provide extensive new insights into interindustry structural stability and change. It is hoped that the number of industrial sectors may be somewhat expanded in future tables. Most important these tables are fully integrated with the income and product accounts.

The broad objective of measuring the input of resources—both material and manpower resources—in relation to the output of our economy has been appreciably advanced by these developments. This includes the GNP aggregate as well as its components of consumer purchases and business investment purchases on a quarterly as well as an annual basis, and also the industrial origin of the GNP in real terms, on an annual basis.

For some time, of course, it has been possible to measure output per unit of labor for the total economy and to some extent for particular sectors; such as, agriculture and manufacturing. But with the development of constant dollar GNP by industry within the same system as the aggregate GNP, the door has been opened to such analysis for all major industrial sectors consistent with our measures for the total economy. We must note, however, that data improvements are still required to establish estimates sufficiently accurate to meet all our needs. One required improvement of major importance is better price deflators.

Within this broad framework of analysis, however, suitable measurement of the wealth stock is lacking. We cannot account (except in fairly crude terms) for the stock of capital resources which is employed to produce the Nation's output—particularly its industrial distribution, technological characteristics, and ownership. And on the consumption side we have only limited information on consumer tangible wealth holdings and claims position.

In the main, the probe we are now undertaking is to see how we may, in manageable compass, reliably measure the tangible reproducible capital resources used to support production and consumption.

It should be understood that it is not necessary to start from scratch in developing information on national wealth. The committee is aware, I am sure, of the estimates of the National Bureau of Economic Research, notably the work of Goldsmith, Kuznets, Creamer, and Kendrick. There are figures available based on tax returns, assessments for tax purposes by State and local governments and data probably of reasonably good quality for the transportation, communications and public utilities sectors developed by the relevant regulatory agencies. The Census Bureau, through its Census of Manufacturers and Business has collected data on the book value of depreciable assets for 1957 and 1963. Also, estimates of fixed capital for certain segments have been prepared by the Office of Business Economics, and of financial assets by the Federal Reserve.

PRESENT PLANS

As the wealth inventory planning study recognized, the ultimate objective is to establish continuing balance sheet and wealth estimates for the Nation and its major sectors within the framework of the national accounts. To provide an adequate basis for such regular estimates, a comprehensive national inventory at something like decade intervals will be necessary. In order to promote the planning for such an inventory and for associated estimates, focal responsibility for guiding and developing the wealth statistics for the Federal Government has been assigned to the Department of Commerce.

With your permission, I should like to submit for the committee's record a copy of my letter addressed to the Assistant Secretary for Economic Affairs of the Department of Commerce.

Senator PROXMIRE. Without objection, that will be done.

(The letter referred to follows:)

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., January 19, 1965.

HON. RICHARD H. HOLTON,
Assistant Secretary of Commerce for Economic Affairs, Department of Commerce, Washington, D.C.

DEAR MR. HOLTON: In order to expedite planning for the scope and major details of a Federal statistical program designed to obtain basic measurements of the physical wealth of the United States at approximately decadal intervals, it is desirable to determine where focal responsibilities should be exercised. The advisory committee to the George Washington University wealth study, recognizing the need for focal assignments, recommended that the Office of Statistical Standards, Bureau of the Budget, as the responsible statistical coordinating agency, undertake to initiate the planning and testing work within the Federal statistical establishment. The George Washington University wealth report has been reprinted by the Joint Economic Committee and hearings will be scheduled for early this year.

The main questions that will have to be faced are what data should be collected, why, and how? While the recently completed George Washington University project discussed these questions in eminently useful ways, they must be examined more concretely in terms of specific actions to be taken.

Toward that end, focal responsibility is hereby assigned to the Office of Business Economics for planning the basic features for the development of official statistics of the Nation's physical wealth. The Office of Business Economics will be expected to guide this work so that it may appropriately support extension of the national economic accounts to include sector balance sheets and meet other needs of economic analysis, particularly those related to problems of capacity.

Focal responsibility is hereby assigned to the Census Bureau for undertaking the pilot and feasibility work on how the requisite data should be collected. The main immediate task involves planning for the economic censuses.

The Office of Statistical Standards, Bureau of the Budget, will undertake to initiate such interagency work as will be needed to further implement other efforts or to support the focal agencies' responsibilities stated above, principally those involving the Federal Reserve Board, Internal Revenue, Agriculture, Interior, and others.

We recognize that these assignments have financial implications and that only a limited start toward implementing them can be made until additional resources can be provided.

Sincerely yours,

RAYMOND T. BOWMAN,
Assistant Director for Statistical Standards.

Mr. BOWMAN. In accordance with this letter, the Office of Business Economics has been given the responsibility for developing and guiding the construction of wealth data within the framework of the national accounts. Initially, the data will pertain to tangible wealth; mainly, physical plant, equipment, and inventories; also land; and if feasible, natural resources; all by sector of *use*. At a later stage, these data on tangible wealth will be integrated with financial data into national and sector balance sheets, tying in with sector of *ownership*.

By construction of the overall framework and by supplying detailed estimates, the Office of Business Economics will provide the guides for those elements of the wealth estimates which will require periodic inventory surveys. Mr. Goldman, Assistant Director of the Office of Business Economics, will describe this effort in more detail.

Responsibility for collecting the information needed for a comprehensive inventory is assigned primarily to the Bureau of the Census. Priority will be given to the pilot and planning work in connection with the 1967 Census of Manufacturers and related efforts. Mr. Morris Hansen, Assistant Director for Research and Development, will describe the efforts and plans of the Census Bureau.

The Bureau of the Budget through its Office of Statistical Standards will provide the necessary interagency coordination required both to improve existing estimates and arrange for the participation of other agencies to provide information for special parts of the inventory. Information from tax returns and from data furnished by the regulatory agencies, would require coordination of efforts of various agencies such as Treasury, Federal Reserve, Agriculture, Interior, and others. Cooperation of the Bureau of Labor Statistics will also be required because of the need to measure changes in prices of fixed capital.

Existing surveys and censuses for collection of data will be utilized wherever possible and no new surveys are planned except as supplements to existing ones. An immediate problem is to see how we might utilize the economic censuses, even in a modest way, for purposes of the inventory. These censuses include mainly the Census of Manufactures, Census of Mineral Industries, and Census of Retail and Wholesale Trade, which are scheduled for coverage of the year 1967. Pilot and testing work for the censuses and certain of the related annual surveys would be done by the Bureau of the Census as soon as possible.

The other important collection vehicles of the Bureau of the Census pertinent to the wealth inventory are the Censuses of Agriculture and of Population and Housing, and the Census of Governments.

Areas not adequately covered by these censuses for the most part are the service industries, transportation, communications, utilities, and the Federal Government. The regulatory agencies provide much of the necessary data for the communications, utilities, and transport segments. A fair degree of estimating work may be required in the area of Federal Government—through greatly improved data have been made available in recent years—and additional work in the service area.

The tasks envisaged by this program are not easy ones. There are serious problems of concept, of reporting, and of reporting burden. The problems of concept relate principally to that of valuation; namely, the problem of revaluing major items of tangible wealth of different ages so as to indicate their changing market value in current prices and in prices of a chosen base period. Largely because of the problem of valuation, the wealth inventory will necessarily involve a considerable amount of price adjustment. There will also be important prob lems of data collection which will have to be evaluated through pilot and testing work by the Bureau of the Census. Additional resources will undoubtedly be required by the statistical agencies if the program is to be implemented and such costs will have to be evaluated against benefits.

We are, nevertheless, persuaded that efforts to explore this extension of statistics should be encouraged. Efforts to improve existing estimates should be strengthened and pilot and testing work for a comprehensive inventory should move ahead.

Senator PROXMIRE. Thank you, Dr. Bowman.

Mr. Goldman?

STATEMENT OF MORRIS R. GOLDMAN, ASSOCIATE DIRECTOR, OFFICE OF BUSINESS ECONOMICS

Mr. GOLDMAN. Thank you, sir.

The report of the wealth inventory planning study, directed by Prof. John W. Kendrick, has made a valuable contribution to the continuing effort to develop economic intelligence necessary for understanding our economic processes. In a systematic fashion the report discusses the uses of wealth data, the experience in making such estimates both in the United States in the past and in selected other countries, and analyzes problems in connection with the development of the estimates.

As the report points out, such a study cannot provide a blueprint for the preparation of wealth data. It can only scratch the surface by exposing the general problems and features of the required estimates. The blueprint must emerge from a much more detailed and specific study of the requirements for the actual estimation.

The Office of Business Economics welcomes the report as an important confirmation of its long-range plans in this area. As is well known, the Office of Business Economics has responsibility, within the Federal Government, for the preparation of the national economic accounts. The national economic accounts are designed to provide an overview of our economy. They provide key data necessary to appraise the performance of the economy as well as to study its structure. As such, they are used widely within the Federal Government not only by the Department of Commerce, but also by such agencies as the Council of Economic Advisers, the Treasury Department, the Budget Bureau, and the Federal Reserve Board in the formulation of overall economic policies. They are used also by private business to provide the background information necessary for the determination of a wide range of policies covering such things as investment, marketing, and production. This does not exhaust the list of users of the information we provide. Other users include State and local governments, trade unions, universities, and research organizations.

The centerpiece of this economic accounting system is the national income and product accounts which provide a summary view of the production, distribution, and use of the Nation's output. In order to provide the detail necessary for analysis and policy formulation, this summary view must be elaborated.

The input-output account, recently published by the Office of Business Economics, shows the industrial structure of production and how changes in final demand, such as consumption and investment, generate production and incomes in the various industries of the economy.

The balance-of-payments account, which we publish quarterly, summarizes transactions between the United States and the rest of the world. It is hardly necessary under present conditions to elaborate on the importance of this information.

Regional accounts provide the geographic area detail underlying the national totals. Up to this point our regional data, published on an annual basis, have been limited to personal income received in each of the 50 States and the District of Columbia. A greatly expanded program of regional economic research is currently underway.

Flow of funds accounts are published regularly by the Board of Governors of the Federal Reserve System. The major purpose of these accounts is to trace the financial processes by which savings are translated into real investment. Consequently, this information is very important for the analysis of money and credit. The Federal Reserve Board estimates are not fully integrated with the national accounts, but important progress toward integration has been made.

The above represent the major elements of the comprehensive and detailed national economic accounting system that now exist. The major gap in this body of information is the lack of data on national wealth—on the total stock of tangible capital, such as plant and equipment, as well as financial assets and liabilities.

This is not to suggest that there is a complete absence of information bearing on national wealth. There is, first of all, the pioneering work of private scholars such as Raymond Goldsmith. Then there are estimates for certain segments of wealth that have been done by Government agencies such as the Federal Reserve Board and ourselves. Finally, there is available a great deal of statistical raw material which could be used to improve and extend the work on the estimation of wealth. However, there is no systematic and comprehensive estimation of balance sheets that can be used jointly with the information now presented in our accounts.

The importance of national wealth data is discussed in the Kendrick report. The report also includes statements testifying to the usefulness of such data by a cross section of economists connected with organizations which are among the major current or prospective users of wealth estimates. The uses of wealth data are also emphasized in a number of other sources, including the report of the National Accounts Review Committee, which was presented to this subcommittee of the Joint Economic Committee of the 85th Congress in October 1957.

I shall comment on selected categories of uses which, to my mind, would be sufficient justification for the preparation of the estimates.

There is, first of all, the analysis of productivity which is central to research on economic growth. Information on capital stock is prerequisite to measurement of capital productivity which is an important element of total productivity. Interindustry comparisons, international comparisons as well as intertemporal comparisons of total productivity can provide a sharpened basis for understanding the forces for growth.

Next, adequate measures of total assets and liabilities, together with significant detail on their composition, are needed for studies aimed at the understanding of economic behavior of business, consumers, and other economic groups.

For instance, our understanding of consumer demand for automobiles and other consumer durables is severely hampered by our lack of comprehensive and current information on the stocks of these items. Similarly, we would gain in our understanding of the dynamics of housing demand if we had better information on the total stock of residences. Additional light could be thrown on the investment decisions of business if we had more adequate information of their assets and liabilities.

Third, our assessment of national needs would be facilitated by the existence of better wealth data. For instance, our agenda in the field of education and health could be sharpened if we knew more about the composition of the fixed facilities related to these programs.

There are a number of other uses which cut across or go beyond the categories mentioned above. For example, studies of capacity utilization are important in analyses of productivity as well as economic behavior. Capacity utilization studies are extremely difficult to make because the concept of capacity is an extremely elusive one. One approach to the problem is to use capital output ratios to estimate maximum output with given stocks of capital. Actual output related to maximum output is then used as an approximation of capacity utilization. In addition, estimates of capacity utilization are very important in studies of inflation and deflation.

The Office of Business Economics has recently been designated by the Bureau of the Budget as the focal agency for the measurement of national wealth (other than primary data collection). We welcome this designation, not only because of the importance of the subject matter, but also because it fits into the area of our responsibilities and because we have done considerable work related to wealth estimates.

Our regular estimates of the national income and product contain series on fixed investment. We prepare regular estimates of business inventories. We have in the past prepared estimates of fixed business capital. We have also done work in estimating consumer assets and housing. Also, in the foreign field, our estimates in connection with the balance of payments, of U.S. investments abroad and foreign investments in the United States, have a clear relevance.

While additional source data are greatly needed, we believe that much progress can be made in the development of wealth estimates by the effective utilization of existing data. Indeed, an actual start on the development of estimates is a prerequisite in identifying needs for new data. Consequently, the estimation of national wealth should not wait for the collection of new basic data.

The following would be an effective program:

(1) We would develop a framework for national wealth estimates that is consistent with the national accounts. This involves developing the structure of the estimates, the concepts, the definitions, and so on.

(2) Estimates would be developed for the sectors which currently are the major gaps. These are households and Government.

(3) We would improve and extend our estimates of business wealth.

(4) Concurrently, we would prepare recommendations for the collection of new basic data. Some of the needs are obvious and could be formulated without waiting for a detailed consideration of the existing data and estimating methodologies. Other recommendations would emerge as we proceed. We would work closely with the Bureau of the Census and the other data-collecting agencies to develop possible approaches to the collection of the necessary additional basic information.

The program I have outlined above is a rather modest one. It is the minimum that is consistent with significant progress in this area. However, if we are to implement even this minimum program on a reasonable schedule, we will require additional resources. Inasmuch as we consider this program very important, we are inclined to give it a high priority in our plans for the coming years.

Senator PROXMIRE. Thank you very much, Mr. Goldman.

Mr. Hansen?

STATEMENT OF MORRIS H. HANSEN, ASSISTANT DIRECTOR FOR RESEARCH AND DEVELOPMENT, BUREAU OF THE CENSUS

Mr. HANSEN. Thank you, Mr. Chairman.

I appreciate this opportunity to appear before this subcommittee and present some views of the staff of the Bureau of the Census on the findings and recommendations developed by the wealth inventory planning study of George Washington University in its June 1964 report, "Measuring the Nation's Wealth," and published by your committee in December 1964.

As you may know, the Census Bureau staff participated actively with Professor Kendrick and his staff during the 15 months in which the wealth inventory planning study was conducted. Mr. A. Ross Eckler, as Deputy Director, represented the Bureau on the study's 14-member advisory committee, while more than a dozen key members of the Census Bureau staff participated actively in 9 of the 14 working groups organized to review existing data availability and deficiencies in each economic sector. This active participation in the wealth study gave us an opportunity to become more fully aware of the many conceptual and statistical problems to be faced in a governmentwide wealth study. In fact, our discussions during the early phases of the wealth inventory planning study enabled us to design some data items in the 1963 Economic Censuses—as I will indicate later—in ways that may provide useful benchmark information and may also be helpful in planning the pilot studies and feasibility tests that will necessarily precede some of the actual collection of wealth statistics.

The wealth inventory planning study identifies ultimate goals. Much remains to be done in determining the more important needs and priorities, and in establishing what should, in fact, be attempted in an initial effort at a wealth inventory. If one accepted the fullest possible formulation of the goals in the study (for example, to provide results for specific types of physical assets, by individual industry, and perhaps by geographic area, together with information on asset age and original cost), the project could become a heavy reporting burden on the business community and costly to the Government. A part of the job will be to define the primary objectives, where necessary, in more limited terms.

THE FEDERAL STATISTICAL SYSTEM

The wealth inventory planning study staff made a series of recommendations in its report which stressed (*a*) that a wealth inventory be developed in conjunction with existing Federal data-collecting programs; and (*b*) that the initial national inventory of wealth be undertaken around the end of this decade to coincide with and, where possible, supplement the various economic and demographic censuses and surveys planned for the 1967–72 period.

The considerable effort and expense of attempting a wealth inventory will require us to take advantage of the existing Federal data collecting and processing systems. This will not only reduce the overhead costs but will also maximize the use of available technical skills, both in the "tooling up" stage and in the actual data collecting and compiling processes. In addition, this tie-in to existing programs will permit users of these tangible assets data to relate them directly with other statistics on labor and materials inputs, with detailed production data, and with other measures of industrial activity for the same establishments, enterprises, or households.

Obviously, before the Census Bureau can develop realistic budget estimates or detailed proposals regarding its role in the collection of data for a national wealth inventory, sufficient exploratory research and advance planning is needed, involving a process of successive approximation, to determine (*a*) the specifications of additional information to be obtained, and (*b*) the reporting feasibility and approximate costs involved in collecting the additional information, including some consideration of the various alternatives available for developing information in those economic sectors not now covered by the Federal statistical system (e.g., construction, religious bodies, professional and nonprofit services, real estate).

We expect, therefore, to hold discussions with the Office of Business Economics and the Bureau of the Budget as an outline of a program is developed. From these discussions should emerge an indication of priorities in regard to timing and acceptable levels of statistical detail for such dimensions as industry, geography, asset class, reporting unit, asset use versus ownership status, et cetera.

As these data requirements come into sharper focus, we at the Census Bureau would hopefully be able to develop concurrently more specific plans for exploratory studies or data collection. In some few instances, needed information may be considered for inclusion on the 1967 Economic Censuses questionnaires (for which the final design must be determined within about the next year). In other instances, it may be evident that the needed information could be more efficiently obtained as a supplemental item on an appropriate annual, quarterly, or monthly sample survey in a subsequent year.

In still other instances, considerable preparatory work will be needed in the way of preliminary pilot studies and feasibility tests (perhaps involving field interviews, or sampling of company or agency records, and other approaches), in order to determine: (*a*) The recordkeeping practices of business firms and households, and of other agencies with relevant records, (*b*) the reportability of the data, (*c*) the cost to the Government, (*d*) the burden on the respondent, and (*e*) the most appropriate statistics-gathering vehicle for obtaining useful information at the levels of detail needed to develop meaningful tangible wealth estimates. Some of the original proposals may need to be cut back considerably in order to reduce the reporting burden on respondents or achieve a balanced and feasible wealth statistics program.

We have been able to assign some limited staff resources to participate in the initial planning of this activity. Also, certain types of assets inquiries can be incorporated into existing censuses or surveys. The development, testing, and evaluation of other types of wealth measurements, and the actual collection of these wealth data, however, will require resources not now available to us.

In formulating future plans for collecting tangible wealth information, the Census Bureau intends to make full use of some valuable, if limited, experiences it has already gained in recent years. You may be interested in the highlights of a few of the more significant Census Bureau activities in the collection of data relating to wealth.

Both in the decennial housing and quinquennial agricultural censuses, and in the more frequent sample surveys of households, useful information has been collected on the value of homes, land, and buildings, as well as counts of major durable items found in households and on farms.

In the quinquennial economic censuses (which presently include manufactures, mineral industries, wholesale trade, retail trade, selected services, and nonregulated aspects of transportation), together with the annual sample surveys in some of these sectors, assets-type data have been collected from the larger establishments and companies on value of inventories held and on new capital expenditures for structures, machinery, and equipment. In the manufactures census, establishment data have also been collected on horsepower ratings of installed prime movers and other power equipment. As an adjunct to the 1958 Census of Manufactures, a sample survey of manufacturing plants was conducted in 1957 to obtain establishment statistics on gross (book) value of fixed assets, accumulated depreciation, annual depreciation charges, rental payments, property taxes, and expenditures for maintenance and repairs. The results provided estimates on an establishment basis for most individual (four-digit SIC) manufacturing industries and for the important major (two-digit) industry groups within each State.

It is equally important to note, however, that such establishment detail was cut back in the 1963 Census of Manufactures, due to our uncertainty of the effect of the Internal Revenue Service 1962 depreciation guidelines (Revenue Procedure 62–21) on business recordkeeping practices and, therefore, on the ability of larger business firms to report such data on an establishment basis. As a result, the sample survey establishments in the 1963 Census of Manufactures were simply asked to report gross (book) value of fixed assets and annual rental payments for buildings and structures and for machinery and equipment in addition to the usual capital expenditures information.

At the same time, company totals on fixed assets were obtained in the 1963 Economic Censuses from the approximately 7,000 largest multi-establishment industrial and business firms in all census-covered sectors. (These companies, incidentally, account for roughly one-half of all employment reported in the economic censuses.) Gross (book) value and net (depreciated) value of fixed-assets data were collected, together with their major components of change during the year; that is, capital expenditures for plant and equipment, other capital acquisitions (due to mergers, et cetera), depreciation and depletion charges for the year, and other deductions (assets sold, retired, scrapped, et cetera). Also, value of company inventories and rental payments data were obtained for each of these large firms.

For the first time, in the 1963 census, a census of transportation was initiated, covering activities in this sector not already surveyed by other Government agencies or by private organizations. In the fixed assets area, a truck inventory and use survey was conducted, based on a sample drawn from State registration records for about 100,000 of the 12 million trucks in the United States. Information collected from each vehicle's owner included its physical characteristics; major use and type of service; intensity of vehicle utilization; et cetera. Also, a bus and truck carrier survey covered those for-hire carriers not subject to ICC regulations and will supplement the data now collected by that agency.

There is another Bureau program from which some useful fixed assets data can be derived. The 1962 Census of Governments featured information on the 1961 assessed value of property subject to State and local area taxation, by class of property (real or personal) and by types of real property (nonfarm residential; acreage and farm; vacant lots; commercial; industrial). In addition, to provide information on the relation between these assessed valuations and actual market values, the Census Bureau conducted a sample survey of real estate transfers taking place during 1961.

There is one other problem involving wealth data in which the Census Bureau has made progress and which will have an important bearing on the Office of Business Economic's ability to construct the necessary sector balance sheets from the existing mosaic of Federal data systems.

Over the years, when users of Government data have attempted to compile statistics from a variety of sources for individual industries, they have faced a major obstacle in achieving data comparability. Many economic statistics: that is, employment, payroll, man-hours, sales and receipts, value added, quantities and value of individual product output and materials consumed, et cetera, are collected and published by the Census Bureau and other statistical agencies for the particular establishments classified in each industry under study.

Many other data items; that is, profits, net income, total assets, new capital investment, depreciation, et cetera, however, are typically available only from financial reports prepared for IRS, SEC, and other regulatory agencies on a companywide basis by the firm which owns the individual establishments. These latter company aggregates can only be compiled, classified by industry, and published on the basis of the primary industry classification of each firm, without regard to its secondary activities, if any, which may be quite important. This unavoidable reporting of data at different organizational levels of the company inevitably results in the publication of noncomparable data for particular industries, even when compatible industry classification systems are used.

Because of this need to integrate these two systems, steps were taken, as part of the 1958 Economic Census program, to link Census establishment data with the financial statistics compiled from corporation tax returns and published by the Internal Revenue Service in "Statistics of Income."

To prepare an approximate data link, the Census Bureau compared its detailed 1958 records for several thousand large industrially diversified companies with the information made available by the Internal Revenue Service from corporation tax returns. For those firms whose records were successfully matched, IRS and Census data were collated and company-establishment industry cross-tabulations were prepared. More generalized link tables were also prepared which statistically related additional portions of the published IRS corporation totals and Census establishment totals, by means of an indirect estimation technique applied to the many smaller single-industry corporations. The resulting publication made it possible, for the first time, to link approximately the published industry distributions of established data (such as, payroll or value-added) in Census reports with the published industry distributions of corporate financial figures (such as, net income or total assets) available in the IRS "Statistics of Income" publications.

The wealth inventory planning study has suggested that the comprehensive Federal data systems can serve as wealth data-gathering channels for most sectors of the U.S. economy. Major fields in which such systems do not now exist will have to be explored and new capabilities developed, either through new survey program development (as is now under study for the construction industry) or through imaginative experimentation with indirect methods of tangible wealth estimation; such as, the possibility of analyzing assessed valuation and sales price data (in as real estate). Also, we may find that significant reductions will be necessary in obtaining the desired types of detailed information, because of lack of adequate data sources, methods of measurement, or cost. It may be necessary to begin on a somewhat modest basis and expand the program later, when some of the problems have been solved.

In order to facilitate the use of some important existing Federal sources of information on wealth, the statistical "links" between different data systems should be developed on a routinized basis. In those instances where there are legal or operational barriers which prevent Census Bureau access to the statistical information already available in the files of various administrative agencies, steps should be initiated to overcome or mitigate such barriers.

In working toward these wealth statistics objectives, the Bureau of the Census is prepared to participate on a joint basis with the Bureau of the Budget, the Office of Business Economics, and other agencies in planning the necessary programs, in testing and evaluating proposed alternative methods and, ultimately, to participate in the collection of such wealth information for which feasible methods can be developed.

Thank you.

Senator PROXMIRE. Thank you, Mr. Hansen.

Mr. Kendrick, I see you are present here today and were here yesterday as well as testifying on the first day. I hope I do not embarrass you by asking you to do this, but I think you can perform a great service for the committee and help us a great deal, since you are the father of this excellent study and proposal. Would you tell us whether or not you feel that the outline which is necessarily tentative and limited which was given us this morning by these three experts, who will be working on this data, satisfies you, No. 1, as to the adequacy of the data which will be made available, and No. 2, as to the timing? It will help us, I think, in our questioning if we get your viewpoint, because you have been involved in this for 2 years.

Mr. KENDRICK. I was very pleased with the program presented by the representatives of the statistical agencies represented here this morning. Quite without collusion, the program which they suggest is quite similar to the one I suggested on Tuesday, as you recall. As I said, this was without consultation among us. It seems to me the logical approach.

The only thing I feel is quite necessary and was not stressed in these presentations is the need during the coming fiscal year for the Census Bureau to conduct some of the pilot studies, feasibility tests, and so forth, that they have mentioned as necessary in order to insure to the extent possible that as much information can be gotten in the 1967 Economic Censuses as is feasible.

I believe that as was stressed by other people appearing here, rather prompt action will be required if we are to use it for the 1967 censuses, so I would hope that the several agencies very soon would start thinking about these specific exploratory studies and as to their conduct within the next 6 months or so.

Senator PROXMIRE. Mr. Hansen, are you from the Bureau of the Census?

Mr. HANSEN. Correct.

Mr. PROXMIRE. Will you tell us what is the feasibility of the census following Dr. Kendrick's suggestion during the coming fiscal year.

Mr. HANSEN. The real problem that arises is the need for fairly specific formulation of what is needed as outlined by Mr. Goldman in his statement. There are some types of things that are fairly obvious that we are going ahead and working on consideration of how they might be done, and whether or not it would be feasible to get tests conducted, if needed to be conducted, or on exploratory discussions, and so on, with the business community; for example, to determine the extent to which information that is needed is available.

The 1967 Economic Censuses are near enough so that things involving extensive feasibility testing may have to be postponed until a later period, either to be conducted in an annual sample survey, in a sample survey which we do annually in some of the fields, or in the 1972 Economic Censuses, which comes later and still within the period under consideration.

I think that we feel, except in a few areas, that what is needed is specific information.

Senator PROXMIRE. You say, "except in a few areas," you need a far more specific designation than you have at the moment?

Mr. HANSEN. Yes, sir; and this will be developed in the joint thinking and discussions and in working with the Office of Business Economics.

Senator PROXMIRE. Is this a matter of adequate budget for 1966 to do this? Would you need more funds? I realize this is pretty late.

Mr. HANSEN. For any large-scale pretesting, we might. But we have funds and will have funds for the preparatory work for the censuses and modest sorts of exploratory studies, evaluative studies, and contacts with the business community to determine the availability of information. We shall be able to handle as a part of the preparatory funds for the census. Until we know more explicitly things that are not known to us now, it would be hard for us to say whether or not additional funds would be required.

Senator PROXMIRE. How rapidly can you go into action so you can get some notion of a timetable and a schedule on this and whether it will require more money or whether it will necessarily have to be postponed? Because, even if you got the funds you need, you could not do it. We would like to have this kind of prescription because, as a committee, it will be helpful to us in case it is necessary to ask for some sort of a supplemental appropriation or in case some other kind of legislative action or encouragement by this committee could be given.

Mr. HANSEN. We are beginning and doing work on the planning of the 1967 Economic Censuses at the present time, and are prepared to enter into discussions currently and rapidly with the Office of Business Economics, the Bureau of the Budget, and others as to exactly what these needs are that need to be spelled out, and what is called for, and whether or not we will be able to deal with it with the resources now available to us.

Senator PROXMIRE. Mr. Bowman, I think perhaps you would be the man who could be able to tell us better than anyone, I suppose, because you do have this overall responsibility, as to the kind of timetable we can get so we can meet what seems to me to be pretty logical and a very well-argued plea for action in this area.

Mr. BOWMAN. Well, Mr. Proxmire, I think as has been said, the basic problem now is to determine more specifically just what new information has to be collected and how. I think the program should still be a program to get basic data that is in or near to 1970. I do not think it should be thought that the censuses are the only way by which some of these data can be gathered.

Now, we will get a considerable amount of information in the usual way on housing, residential housing, in the regular decennial census. I would like to see some work done in the 1967 censuses, but I do not have too much confidence right now that there can be any major additions to the 1967 census beyond some of the fairly obvious things, as Mr. Hansen used the term. The more difficult things that might be added, such as asset detail and age, might go on sample surveys.

I would not be concerned about only modest additions to the 1967 censuses, because some of the more detailed information can be gathered in annual surveys, as Mr. Hansen has pointed out. In addition, the 1972 census would not be too late to get data that would tie into a 1970 basic benchmark year.

I think the important thing is to have the two agencies concentrate their attention now on more definite and detailed plans for estimates and for pilot and feasibility work.

Senator PROXMIRE. Would you be able to work up a timetable so that you can work out logically a system so that they can get together and discuss this and arrive at the determination as to when they can get together and discuss this and arrive at the determination as to when they can come forward with this?

Mr. BOWMAN. Yes; I think so. What I am trying to say, however, is that I do not expect all this to be done in time to implement budgetwise any major extension in the 1967 censuses.

Senator PROXMIRE. Let me ask, Will we have a detailed schedule by September or by January?

Mr. BOWMAN. I do not know. This would depend a little bit upon the agencies. I am waiting on them now. I think I would like to answer your question in this way: I do not believe that this overall program that is laid before you is anything that can be dealt with in 1 fiscal year. I think this is a program that will have to be developed over the period between now and 1972.

Senator PROXMIRE. I understand that, and I think we all do. We simply want to get as much information as you can give us on how this is going to proceed so that we can oversee it and also be in a position to stimulate whatever appropriations committee or other committee of the Congress it is necessary to win action on this.

Mr. BOWMAN. Anything that is involved in the 1967 budget request will have to be well along by September of this year. I think we must have a much more detailed plan than can be developed by that time. But I do not think that the feasibility studies that we will have to make could possibly be included by this time.

Senator PROXMIRE. I think on this point, Senator Miller had a question.

Senator MILLER. It seems to me before you can give us a schedule, you would have to have some answers to some questions as to just exactly what data will be collected. I am wondering how you can possibly set up a schedule that will be meaningful unless you have the guidance as to what data are to be covered.

Mr. BOWMAN. I think the point I would try to make is that at the present time, nothing that I have said in my statement or nothing that I believe any of the representatives of the statistical agencies have said indicated that we now have a clear-cut and specific program for wealth statistics. We do have plans for developing such a program. The depth and the detail of that program will have to depend upon an evaluation by the agencies, by the Bureau of the Budget, and eventually by the Congress of what might be called the cost benefits to be derived from such a program.

The paper by the Office of Business Economics stresses to a considerable extent their ability to do a considerable amount in this area by estimates using existing data. The money costs here would be much smaller than if a large amount of new data would have to be collected.

I would say that I am skeptical that in the end we can be confident enough in these estimates to not eventually have to collect much more detailed data than we are now collecting. But it seems to me this has to be evaluated in the process itself.

Senator MILLER. Well, may I just pursue this a little further? When Senator Proxmire asked you whether you can provide or establish a schedule, my question is, How can you possibly establish a schedule unless you, either on the basis of your own assumptions or on the basis of some guidance on this committee or some other source regarding the type of data to be covered in the schedule—how can you establish the schedule?

Senator PROXMIRE. If I could just interrupt at this point, I would say to Senator Miller that in the last 3 days we have been working on that and I think the Kendrick report sets forth without too much controversy the kind of data that is required. All the witnesses we have had—we had three excellent witnesses yesterday, outstanding economists—and the three administration witnesses today seem to be fairly well agreed on the kind of capital stock data that we need. There was some suggestion by Congressman Curtis that we should be very clear that this does not cover human weath, the skills, and so forth. I think Mr. Bowman brought that out this morning very well.

But I think we are fairly well agreed on the kind of data that we have to gather. There does not seem to be a very great controversy as I understand it. Perhaps I am wrong.

Do any of you gentlemen disagree? Are you confused as to what kind of wealth data is needed or do you have a good knowledge, do you feel, of what is needed?

Mr. BOWMAN. We have a good knowledge of the basic objectives, but I would say we do not yet know how we want to collect it, what specific items we want to collect, how the schedule would be designed, what the reaction of the business community would be to the collection of the information, how much it would cost to collect the information, what amount of geographic detail we want.

In other words, it is one thing to provide asset data for all counties and States of the United States; it is another thing to provide it for the United States as a whole.

Senator PROXMIRE. Yes, indeed. Well, I think that has been brought out right along. I think that the most useful information you can give us, and perhaps you cannot give it this morning, but perhaps you can make some kind of statement indicating how much you think a modest program would cost and what information that would give us. Then you might give us a more ambitious program and you might give us one in which everything that has been suggested by Mr. Kendrick is provided for. It seems to me these hearings have been featured by a lack of controversy. Maybe that is what we need, a little more controversy. And I welcome any suggestion you can give.

But there seems to be an agreement between reasonable people involved, the economists and the others and the administration people, that they will get together on some kind of program that will not cost very much and get adequate information so we can help develop economic policies that are wiser and based on more information.

Mr. BOWMAN. It is not sharp controversy with the objectives, because I am a strong supporter of the objectives underlying the improvement of wealth data. Cost estimates now, I think, are impossible until the program is much more detailed than it is at the present time.

Senator PROXMIRE. For instance, yesterday, one of the witnesses, a prominent business economist, suggested that if this is going to cost over $500,000, go ahead and there should not be any question as to the money involved. If it is going to cost $4 or $5 million, it would still be good, but if it is going to cost $50 million, it might be something else. I am not asking, of course, for anything specific in terms of the last ten-thousandths of a dollar, but just roughly, is this something that is going to cost in the area of $100,000, $1 million, or what?

Mr. BOWMAN. Let me answer it this way: As you know, I am not giving any budget figures. But estimates with regard to the overall compass of this program, certainly, as I see the program developing, the overall costs will be more than hundreds of thousands of dollars. It will be more than, say, a million dollars. It will be a small fraction, even in a fully developed program, or what we are now spending for economic censuses.

Senator PROXMIRE. We now spend how much?

Mr. BOWMAN. About $200 million a decade, including the decennial and other major censuses.

Senator PROXMIRE. This would be over a million dollars, but it will not be $10 million.

Mr. BOWMAN. My guess is that some of the estimating work that OBE can do are in the compass of a few hundred thousand dollars. Some exploratory work that the Census might do are also within the same compass.

But if it proves desirable to take a more complete inventory of wealth so as to obtain important geographic detail at decade intervals, this will cost much more at least once every decade.

Senator PROXMIRE. Then you tell us on pages 2 or 3 how enormously valuable this will be. You say:

> It is fair to say that had we had a comprehensive accounting of capital stock, of the financial assets of business and consumers, the postwar economic projections would have been considerably better.

The savings here for business, let alone the Government, could be very, very great if we had better information so that our policies could have been wiser.

Then you also point out that—

> increased interest in economic growth, both here and abroad, heightened considerably an interest in the underlying sources of differential growth rates. The deficiency of data on capital stock for such inquiry was clearly apparent.

Here again is a very important way in which this census can contribute to wise policy.

You go on to the contribution the census could make to investment by consumers and by business in promoting stable growth, labor productivity analysis, and to better understanding of the balance-of-payments problem. All the decisions involved in these problems would be decided in a far more enlightened way if we had this kind of information.

So if this is a matter of $1 or $2 million—both Senator Miller and I are deeply interested in economy and have indicated that in our votes—it seems to me this would be a whale of a good investment and one that we should not be, really, penny wise and pound foolish in. So I hope that the monetary aspect of this will not hold you back as long as the cost is in the general area that you have described.

Mr. BOWMAN. Senator Proxmire, I would like to make my position on this clear. I think that the kind of data we ought to have on wealth—at decade intervals in particular and for the estimate to be done between decade intervals—if that were to cost as much as 10 percent of our overall census programs, it would be money well spent. That is about $20 million.

That is my personal opinion of how valuable wealth data will be for economic analysis. But whether or not a program can be developed which definitely demonstrates the benefits for each element in such a program cannot be stated at this time. We have not nearly reached the stage to evaluate in this detail as yet.

Senator PROXMIRE. Then all I ask is that as you reach the stage, you keep us apprised so we can have a picture of the alternatives. In other words, if you spend a little, you get a little, if you spend a little more, you get a little more. What do you get? We can, perhaps, be of some help in pushing the program along, recognizing that, of course, we are aware of the limitations on expenditures and we are concerned with that, too, but also concerned with the enormous help that this can be both to the busines and Government economy.

I do not want to take too much time right now. I will come back, and I yield to Senator Miller.

Senator MILLER. I want to concur with Senator Proxmire in his suggestion to you that you might come up with some alternative approaches to this. I take it from what you have said that you could not just take this report and go ahead and make a schedule which would really be meaningful?

Mr. BOWMAN. That is right.

Senator MILLER. Well, you could make a schedule, but it might be a very austere schedule, it might be something that would be too detailed, really, to make the cost-benefit ratio what it should be. But it would seem that if you could have your people develop a program which you might call an austere program and another one which you might call a moderate program, and then another one which you might call the ultimate in programs, and then detail the type of beneficial information each could provide and to what extent; for example, the austere program would be efficient compared to the moderate program. Then we might have something that would be a good basis for a sound decision.

As I interpret this, there does not seem to be much question about the objectives. The question will probably come: To what extent are the estimates to be refined? Regardless of where you go, there are going to be estimates. Even in your ultimate type of approach, you are going to have an estimate. You are not going to have what could be called completely accurate information. So the question will be: To what extent are the estimates provided by an austere program going to attain those objectives? To what extent can a moderate approach attain them and to what extent can an ultimate approach attain the objectives? Then there will have to be a decision, I think, made possibly by the Congress in the Appropriations Committee as to which one we are going to use.

I would appreciate a comment from Professor Kendrick, if he would care to, as to whether he thinks that, inasmuch as this is going to be an estimate at best, there might be some approach, possibly through the use of—through computerization or computerization projections which would enable us to do a pretty good job on, let us say, an austere-type program as distinguished from one which would be considered an expensive program.

Mr. KENDRICK. I think an austere program could still yield very valuable results. A more moderate or ultimate program would require rather detailed listings by a sample of establishments, of their equipment and machinery by type, by age. It is in that area that we really do not know what the costs will be and we shall have to do some experimental work to find out. I think that that sort of detailed information would certainly refine the estimates, making the estimates much more accurate and more usable with this detail.

I am sure that computerization is going to cut some of the basic costs that much; it will, of course, for respondents, if they can put the basic information from their equipment cards into the computer and tabulate inexpensively the detailed information. Nevertheless, providing all of this data and processing all of this data will be quite expensive when it is done in detail on a one-time basis.

However, with austere or moderate programs, where you get a great amount of information by broader equipment or structural types, costs will be reduced a great deal. The accuracy of the estimates will not be as great, but nevertheless, it will be very worth while.

It was in this area, too, that I was thinking of some exploratory work during the coming year. For example, as was mentioned in Mr. Hansen's statement, the establishment asset inquiry was cut quite a bit back in 1963 due to uncertainty by the Census Bureau as to how much information could be gotten from establishments about assets. I think during the coming months, this could be pinned down much more specifically by conversations with businessmen as to whether, at least in terms of general categories, more establishment information could be provided in the next economic census for 1967.

I know I have rambled a bit in answering your question, sir, is there something more specific that I can say?

Senator MILLER. Let me put it this way: You might have a choice of going either of two ways. For example, with respect to an industry, you might touch all of the members of that industry in a rather generalized approach. You might, for example, try to go into the assets of each and every member of the industry and you might not worry too much about the individual market values of each of those assets. You might rely upon book value and depreciation. Or you might take a sampling of the members of the industry and do a real detailed job of market values, and then through your computer estimates, or computer system, project it into the industry as a whole.

Now, I do not know which would be the better approach, but there are two possible approaches there. I am quite sure there are other approaches.

Dr. KENDRICK. We have recommended both approaches in the wealth study. We have recommended getting book values for broad categories of assets from all establishments and all companies covered by the various censuses and other data systems. But then we also recommended for a small sample of respondents in each industry obtaining detailed information so that one could impute distributions to the full range of establishments or companies. It is in this area that I think the additional exploration needs to be done. Even with respect to the broad question, some more exploration has to be conducted to see whether the companies can provide even this broad data on an establishment basis. Then, we have to start from scratch in the Census Bureau work of planning for a detailed listing from a small sampling of establishments or firms.

Senator MILLER. Until you get the answers to those questions, Mr. Bowman, how can you possibly set up three alternative types of programs or schedules?

Mr. BOWMAN. I cannot.

Senator MILLER. That is what I am getting at.

Senator PROXMIRE. If the Senator will yield at this point, the question is how fast can you carry out experimentation so you can determine the costs and benefits and burdens of each program, is that not right?

Mr. BOWMAN. That is right.

Senator PROXMIRE. Can you give us an answer to that?

Mr. BOWMAN. May I comment on this point a little? I do not think there is any doubt that we will never collect all data from all establishments and firms. We would use a sampling technique for much of the detailed data. The costs, however, even when sampling is used, differ if State data is desired as contrasted to national data or whether we want county data as well as State data. This means we have to weigh the costs against the benefits of getting such additional information. We must not only consider the cost to the Federal Government. We have to also consider the cost to the reporting firms. How burdensome is this? How much difficulty is there in getting it?

And we have another very important problem, remember. There are still some questions, can you collect accurate data of this sort? My own personal opinion now is—but this is subject to reevaluation—I think we can. I think we can collect data of this character accurate enough for the purposes to which we want to put it.

But I am not going to base final decisions with regard to the Budget Bureau action on this until I have had a chance to evaluate this a lot more closely than we have been able to evaluate it as yet.

Senator PROXMIRE. Let me just pursue it by saying can you tell us, then, how fast you can carry on experimentation? Are you going to proceed right away? Do you intend to go ahead? Is there any fiscal limit on this? We are not asking for a final schedule but asking for—except for a schedule, perhaps, of your experimentation so that you can determine the costs and so forth?

Mr. BOWMAN. I will do everything to keep this committee advised of the plans as they develop. Now, I want to push this as fast as I can, but until I get reports back from the Office of Business Economics and the Census Bureau, which suggest immediate things and things for the most distant future, I really cannot promise anything. I am going to have to rely upon them, but I shall certainly push this as hard as I possibly can.

Senator MILLER. Will the Senator yield?

Senator PROXMIRE. Yes.

Senator MILLER. In that connection, are you going to ask these gentlemen, I am not sure, was it Mr. Goldman who referred to something about the need for refinement of the concept?

Mr. GOLDMAN. Development of the concept, sir.

Senator MILLER. Now, is the concept developed adequately or can it be developed adequately, and how soon, for you to in turn go back to Mr. Bowman and give him the information that he is going to report?

Mr. GOLDMAN. I think in answer to that, our attitude would be that we can work on two fronts at the same time. On the one hand, considering the scheduling problem of the Census Bureau and the timing of the censuses, we would concentrate first on laying out questions or subject matter that would be suggested for the 1967 censuses. I think that as soon as the Census staff knows what these recommended questions are, they can begin to test their reportability and what the problems and cost will be. At the same time, we will try to lay out the overall framework, that I mentioned in my statement, which the answers to these inquiries could be fit.

Now, there are certain kinds of information which are obviously necessary and which do not have to wait for the overall framework to be laid out before the work is started. I think that is what we have to concentrate on in the coming months. The Office of Business Economics is starting immediately to look into the problems and to lay out a program, and we hope to be able to make some recommendations to the Census Bureau for the 1967 censuses within the next few months. We are trying to move as quickly as possible so that we do not miss the opportunity to get some work done in the 1967 censuses.

Senator MILLER. But until that concept is developed more specifically, you are not going to be able to give Mr. Goldman all the information he will need?

Mr. GOLDMAN. There will not be available all the information which will permit an overall evaluation of the total cost of the entire program. But I think the cost estimate has to be approached in stages. The first stage could be estimated once the first requirements are laid out and the Census Bureau has had an opportunity to investigate the feasibility and the costs covering these requirements.

Senator MILLER. Do you think there is any difference between your Office and the Kendrick report over concept?

Mr. GOLDMAN. At this point, I do not think so. There is nothing in the Kendrick report that we would object to as far as definitions and approach is concerned. The point I was making in talking about the need for developing concepts was that when you try to translate the general goal, the general objective, into specific sets of tables and estimating methodologies that you have to start sharpening up some of the specific definitions, specific classifications, and so on. This is the kind of thing I had in mind.

Senator MILLER. That is what my interpretation would be, and do you think when you start doing that, you are going to have any difficulties with Mr. Kendrick?

Mr. GOLDMAN. I do not know, sir.

Senator MILLER. It would seem to me to be pretty important, granted that you agree on the objectives and the values, it would be pretty important for there to be some agreement as to the detailed concept you just referred to. Because if you are not in agreement, you might end up with something quite different from what Professor Kendrick has in mind.

Mr. GOLDMAN. Well, I do not think it is likely that we would end up with something that was substantially different from what Professor Kendrick has in mind. I think as we go along, there might be some differences on the level of industrial detail, on the level of geographic detail, on some of the specific concepts, such as the question of valuation of assets on the basis of current cost or constant cost—not that the different concepts are necessarily mutually exclusive, but there could be differences concerning which one to emphasize. There might be various differences in emphasis as we go along. But I do not think these possible differences will affect the general agreement on the important objective, which is the development of wealth data that will be useful in the kinds of problems that were mentioned.

Senator MILLER. I am sure there would not be a difference as to the latter, but I can see where there would be sharp differences as to the former, which in turn are going to have an impact on what Mr. Bowman is going to be able to come up with. That is why I asked you originally if you thought this concept can be refined sufficiently so that you can go ahead and provide the information Mr. Bowman needs. I take it that your answer is that if you can do it in part, at least, you will have to kind of feel your way along as to some of the other aspects of it.

Is that going to satisfy your requirements, Mr. Bowman?

Senator PROXMIRE. Could I just ask Mr. Goldman before we shift over to Mr. Bowman if it is not true that there are sharp differences of opinion now among the economists on the concepts involved in the income and product accounts? I have heard all kinds of differences of opinion. We always will have such conceptual differences as long as we have economists and as long as we have, you know, the kind of sematic difficulties we will have predictably in economics. That does not stop us from getting this enormously useful information from the present income and product accounts and the same will be true from the wealth census, even with conceptual differences continuing.

Mr. GOLDMAN. That is right. There are sharp differences in many areas—gross national product, input, output, balance of payments—as you well know. I think it is quite correct to say that despite the controversy, very important and useful information has been developed.

Mr. BOWMAN. I think in this area, I do not see too many difficulties with regard to the basic development of concepts for the actual collection of the data. I think the points that were made by the Office of Business Economics are valid ones. I do not think Mr. Kendrick thought of his report as providing a rigid system. When you come to collect actual data, you may have to modify the definition a little bit in the light of the problems of collecting the data. I see no major or even significant minor difficulties between the job of the Government in setting out to do this and the recommendations of the committee.

But I would like to make this point: From now on, I think it is a Government job. It is either going to do this or it is not going to do it. This committee report has been an excellent guide. But from now on, the Government is going to have to decide which are the best definitions to use from a collection point of view, from an economic analysis point of view, and so on, how it best fits into the structure of the income and product accounts. I do not think Mr. Kendrick or any of the members of the working staff or committee will disagree with that aspect. But you might ask him if you would like to.

Thank you.

Senator MILLER. Then who is supposed to make that decision or those decisions?

Mr. BOWMAN. I think from now on the decisions are those of the Government, the statistical agencies and my Office.

Senator MILLER. Would it be primarily your Office? In other words, we do not want to have three different agencies making three different decisions. Who is supposed to have the final decision on this?

Mr. BOWMAN. My Office. However, statistical agencies work closely enough together now, it is not a coercive problem. It is a problem of discussion, understanding, comprehension. If a decision has to be made because of differences of opinion, it is generally the responsibility of my Office to make it.

Senator PROXMIRE. Mr. Goldman, I know that your Office of Business Economics has all kinds of problems with balance-of-payments controversy right now. Perhaps your budget is already strained. I am concerned that maybe you will not have adequate funds to proceed on the wealth studies with the data you already have. You have much data that you can work on in developing information very helpfully in getting a wealth inventory. Is it possible for you to tell us now whether or not you will need a little more funds to proceed with this in view of the balance-of-payments problem?

Mr. GOLDMAN. I would like to try to answer it this way: In the proposed 1966 fiscal year budget, which is now being considered in Congress, we do not have any provision for additional wealth work. Because we do have some work going on in some of the other fields I mentioned, which is related, we do have some resources we can devote to this problem during this coming fiscal year. However, it would have to be on a very modest basis. We do plan to put in a larger request for funds in the 1967 budget, the cycle for which is now starting.

So that in answer to the question, to do anything on a large scale for 1966 would require additional funds. However, I am not sure it is worth trying to plunge in too heavily right at the beginning. I think perhaps we can accomplish a lot more, in a more systematic way, if we do start on a small scale until we know where we are going and then move on.

Senator PROXMIRE. I hope you will proceed with all deliberate speed, with the emphasis on speed rather than deliberate.

I would like to ask Mr. Hansen this question. You say in your statement:

> In other instances, it may be evident that the needed information could be more efficiently obtained as a supplemental item on an appropriate annual, quarterly, or monthly sample survey in a subsequent year.

I get the feeling that in these other instances you may have to wait a long, long time. Can you be a little more specific on what you are talking about?

Mr. HANSEN. That is certainly not the intention, to indicate that you may have to wait a long, long time. If something is not done in 1967, it might be done, for example, in 1968, 1969, or 1970, as a part of the regular annual survey. It is under consideration for any of the years of the period from 1968 through 1972.

Senator PROXMIRE. You indicate also in the same paragraph that you intend to start out as Mr. Goldman indicated in his last response, rather slowly and working into it.

Maybe you can work on the basis of some genuine beginnings in the 1967 economic questionnaires. You indicate that in the overwhelming majority of cases, you are going to defer them.

Mr. HANSEN. Yes; I think because it is a matter of going through the process that has been discussed already of making explicitly clear what is the program in specific terms.

Senator PROXMIRE. I certainly do not mean to suggest that there would be any approval on the part of Congress to move ahead before you know what you are doing. At the same time, I do hope that you can proceed just as rapidly as possible.

Mr. HANSEN. Could I add a comment here that may be related to the earlier discussion, on this difficulty of making cost estimates explicit and procedures in detail at the present time. This is simply an amplification of a point that Mr. Bowman made.

We can take a sample census, say, of the population of the United States that produces national statistics, depending on the kind of detail that is wanted, for maybe a few hundred thousand dollars or even less. To produce that information for individual countries with sufficiently high accuracy costs it may be necessary to take a census that may cost, say, something in the order of $100 million.

Senator PROXMIRE. I had the impression that what Mr. Kendrick, and I know he will correct me if I am wrong—I had the impression that your committee, Dr. Kendrick, has been concerned with National figures rather than State or county figures. This State and county concept is a very proper consideration here, because, of course, that does greatly magnify the problems involved in the population census and many other things and we have to have it. Did I misinterpret or misunderstand you and others who have testified that you are interested, at least up to 1972, in National figures rather than State or county figures?

Mr. KENDRICK. Actually, the advisory committee to the wealth study recommended not only National estimates but also State estimates and estimates for major standard metropolitan statistical areas.

Senator PROXMIRE. I am glad, because I had missed that in the testimony before and I think this certainly would make a great difference.

Senator MILLER. Would the Senator yield at that point?

Senator PROXMIRE. I would be happy to.

Senator MILLER. I take it we are also talking about regional figures. Of course, you cannot have those unless you have your State figures, but it seems to me we are thinking in terms of regional areas a lot nowadays. That is within your concept, too, is it not?

Mr. KENDRICK. Insofar as these regions would be composed of States or modifications of States to include certain metropolitan areas that may cut across State lines. I do not think we were thinking of regions which are very detailed, consisting mainly of collections of counties that may cut across State lines.

Senator MILLER. I was thinking of regions of States such as northeast, northwest, southwest.

Mr. KENDRICK. Yes; by getting States, we would automatically get the regional groupings.

Senator PROXMIRE. I think this is a very fine objective, but I would certainly encourage—and you recognize as a matter of practical fact—that you do start out with the national figures. Since we have one economy and one nation, I am just inclined to feel, and so many of the policies, of course—virtually all the policies Congress is concerned with—are national. I think if we can just get that, then later, we will be in a much better position after we get that to determine whether or not we want to go on a State basis, the cost, the burden on respondents, et cetera, involved within it. If we can begin on that basis or that assumption, it seems to me we are going to be able to get more definitive and helpful answers from the Government witnesses.

Senator MILLER. May I make a comment on that point?

Senator PROXMIRE. Of course, we all want statistics on Wisconsin and Iowa.

Senator MILLER. Well, of course, in formulating our policies in the Congress, I think during the last few years, we have tended to take into very great consideration the economic development in regions. The passage of the Appalachian bill is a perfect example of what I am talking about. So I do not know whether it would be too much more difficult to get these data—by States—you are going to have to get them by States, probably, in working up your National data anyhow. So I do not think we shall be going at cross-purposes if we develop regional and State figures as we work up the National figures. Can we?

Senator PROXMIRE. I see Dr. Kendrick nodding and I see Mr. Hansen shaking his head. I am inclined to go along with Mr. Hansen. In any kind of opinion poll, and I am sure this is true of a sample, you get a national sample which is accurate within 1 percent of deviation and that is worthless for telling you what the situation is in Iowa or Wisconsin, although they may have drawn some people from our States, maybe not. They may have drawn 30 or 40 people from each State, which may be perfectly proper for a National sample, and it would tell you nothing at all for an area that would be useful.

Mr. HANSEN. The chairman is exactly right.

Senator MILLER. I have the impression that the sampling would be considerably greater. We are not going to take a real small fraction of sampling such as they might do in the Gallup poll, for example. This is going to be a pretty detailed sampling at the very least. If it is, then I would hope we could have State figures that would be fairly reliable. If the gentleman here from the Census Bureau would comment on that, I would appreciate it.

Mr. HANSEN. The chairman has stated it very well. A very different size of sample is needed to provide separate measurements for States or smaller areas. If we want to get State statistics and metropolitan area statistics, the necessary size of sample is very much greater than if we want to get only National statistics. This is almost universally true. If we want to go further and get more detailed geographic statistics, the size of the sample is still greater. So this matter of geographic detail is very important in determining costs.

The other question that is equally important is the classification detail, the extent to which only summary detail is going to be provided, and the extent to which details of physical assets are needed, and the way one of these is crossed by the other, geographical detail and physical asset detail.

Another determination in cost is the extent to which economic analysts and others feel they can make reasonable estimates of existing information by indirect methods and the extent to which, in important areas, we must go out and directly measure things. This has to be developed a good deal in getting the specific specifications.

In the national income accounts, in their earlier development, much more was done by indirect estimation and as they became more needed and more useful, the analysts pressed for more direct measurement and this has a good deal of impact on the costs.

Senator MILLER. May I conclude from that, then, that when Mr. Bowman works up his scheduling and his alternative programs, he will probably include in those the difference between the data needed for a purely National approach and the data needed for a State and regional approach?

Mr. BOWMAN. May I comment on that, Mr. Chairman, just very briefly?

Senator PROXMIRE. Surely.

Mr. BOWMAN. I think there is need for some State data or geographic breaks in the National aggregate. That is why I would call your particular attention to the way in which I conceive of the program, as a program which, at something like decade intervals, gets a considerable amount of data not only for the Nation as a whole but for the various parts of the Nation. But for the estimates that go on in between decades, there is no attempt to provide anything like the same geographic detail as would be true at the decade intervals.

Furthermore, even at the decade intervals, some items of information would be for a finer geographic detail. But other items of information, like detailed inventories of equipment by age, might not be by geographic areas at all, would have to be for the Nation as a whole. That is why this program is not an easy one to talk about. It encompasses a supply of information more complete at decade intervals, with the decade interval information providing basic benchmarks to which the other estimates can be tied. So that the accuracy will be evaluated from several points of view.

That is why I have been very disappointed in myself because I have not been able to answer certain questions on cost more specifically than I have done.

Thank you.

Senator MILLER. May I say, I appreciate your frankness in that, but I think that it is frankness based upon the wisdom of the difficulties involved. We certainly—I, for one, and I am sure Senator Proxmire feels the same way—want you to know that we recognize you have practical problems. We just want you to do the best you can.

Senator PROXMIRE. I think that is an excellent note on which to close the hearings this morning. All of you gentlemen have been extremely helpful. Your papers are excellent and I think that the contribution by Dr. Kendrick is mighty welcome, too. We do, I think, feel great urgency in this program. I think one of the great revolutions, really, in the world has been the revolution in economic policy, a revolution which I think is greatly responsible for what economic progress we have made in this country and it is based very largely on improved statistics, in my judgment, and more sophisticated understanding of those statistics. We are now, I think, on the verge, I hope, of breaking through into another realm which can add a new dimension to our statistical understanding. This can be so important that I earnestly hope that you will give it your full attention and from what you have told us this morning, I am sure you will.

Thank you, very much.

This concludes the hearings of the Subcommittee on Economic Statistics. Once again, thank you. And thanks to Senator Miller, who injected that welcome note of controversy this morning.

(Whereupon, at 11:55 a.m., the subcommittee adjourned.)

APPENDIX

YALE UNIVERSITY,
New Haven, Conn., June 13, 1965.

HON. WILLIAM PROXMIRE,
Chairman, Subcommittee on Economic Statistics, Joint Economic Committee, U.S. Senate, Washington, D.C.

DEAR SENATOR PROXMIRE: This letter is in response to the opportunity mentioned at the recent hearings on "Measuring the Nation's Wealth," to have written communications on the wealth inventory proposal incorporated in the printed record of the hearings.

As chairman of the timber resources subgroup, natural resources working group, of the Wealth Inventory Planning Study and on behalf of members of the subgroup, I should like to express the hope that wealth estimates will be prepared as part of the national economic accounts and that the values of the Nation's timber and other forest resources will be included as identifiable segments of such estimates.

As pointed out in the timber subgroup report (p. 574 of the joint committee print) a problem of overlap exists. Commercial forest land and timber may be included in wealth estimates for several sectors of the economy, for example natural resources, agriculture, manufacturing, and Government, both Federal and State-local. Moreover, within the natural resources sector itself, duplication could well occur as between the timber resources and public lands classifications. When value estimates go beyond commercial forest land and timber to reflect other forest values such as those pertaining to minerals, water, grazing, wildlife, and recreation, the likelihood of double counting increases.

If the timber and other forest value estimates are to be of maximum usefulness, we believe that they should be separately identified in whatever sector they may occur. This would enable adjustments to be made to avoid duplication and at the same time would permit the determination of an aggregate value for the forest resource representing one-fourth of the Nation's land area. Such a value could, we believe, serve a useful purpose not only in a forestry context but in the broader framework of the national economic accounts as a whole.

Please be assured that members of the timber resources subgroup will be happy to be of assistance as the wealth inventory moves forward.

Sincerely yours,

ALBERT C. WORRELL,
Professor of Forest Economics.