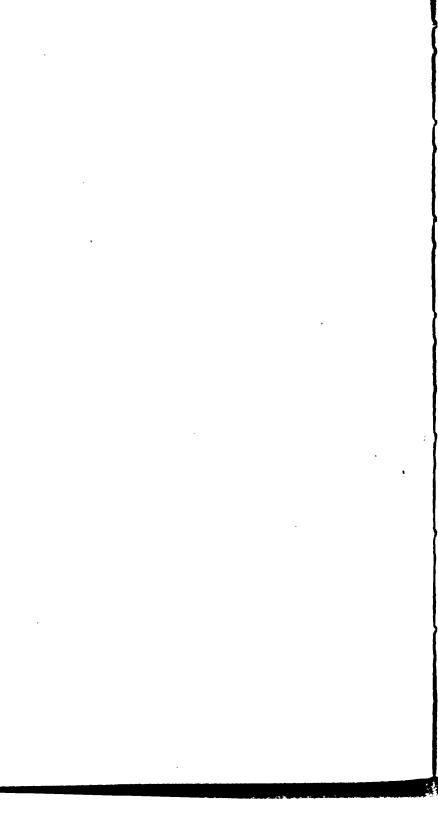
NATIONAL BUREAU OF ECONOMIC RESEARCH

Report of the Executive Director

for 1937

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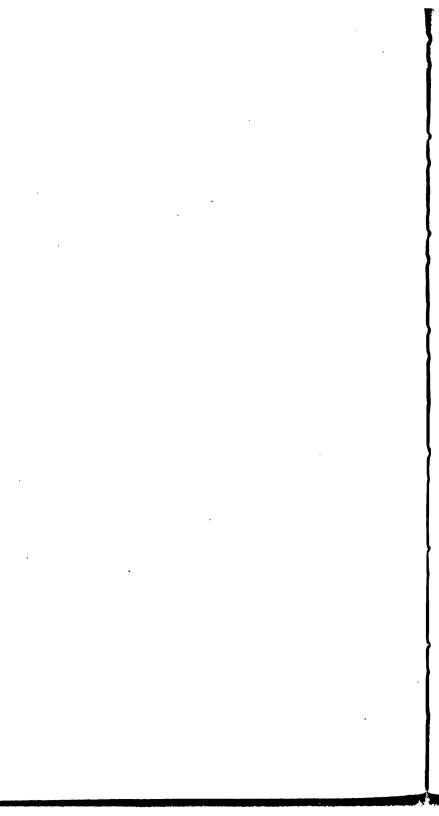
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I Social Policy and Economic Research

How may research in economics and in the other social sciences be made to contribute more effectively to social understanding, and consequently, to wiser public and private policy?

The scientific world contains no problem that touches the public interest more vitally. The issue is not whether we shall or shall not engage in research in the social sciences. Eventsdetermine that we shall. The issue is whether such research will be effective. The only alternative is to admit that impartial establishment of facts is either impossible or unimportant in the world of today and that decisions may be safely left to ignorance and partisanship working with their tools of propaganda and prejudiced appeal. That is an impossible alternative in a wise society or one that desires to remain democratic. Society should utilize to the maximum the research approach to economics and related problems, thereby enlarging the area of definitely ascertained fact upon the basis of which useful public and private action may confidently rest. Only by such a course may society hope to narrow the contentious area or change contention from a negative to a creative process.

Scientists are always under compulsion-both internal and external-to justify their activity by contributing to the solution of the problems that vex society. For economists especially, the pressure is magnified by the seriousness and immediacy of economic problems in the contemporary world. Competent students of these problems are, therefore, earnestly endeavoring to make scientific efforts in these fields approximate the maturity in spirit, in method, and in self-

discipline that characterizes the best work of the physical and biological sciences.

To make such efforts successful, we must recognize that the nature of the problems confronting the social sciences differs from that of the older sciences in several important respects, of which the following are illustrative:

i) The variable of the material of the social sciences is unpredictable man himself. "The minds of men do not admit of the same definite analysis as do the events of the external world. Paradoxical as it may sound, one of the chief differences between the world of matter and the world of mind is that the world of matter is essentially reasonable and the world of mind is not. Reason arose because of its relation to the world of matter. It helps man to conquer his environment. The possibilities of understanding and coping with the external world that the use of reason offers man are almost boundless; its possibilities in the way of understanding and forecasting his own activities are strictly limited. Those activities are partially, though only partially, rational. The presence of a modicum of reason is the disturbing element in the problem which stands in the way of any complete solution by reason." 1

Alfred Marshall-and many other economists since-have pointed out the special difficulties that arise because human emotions, prejudices, and interests are involved in the problems of the social sciences. It will not be possible to arrive at the same degree of precision, predictability, or applicability of results that the physical sciences attain. No matter how scientific economics may become, one must admit that the actions of men are "too various and too uncertain". The best statement of tendencies we can make in a science involving the conduct and the prejudice of men, their motives and interests, their variable mental reactions "must needs be inexact and faulty".

¹ Frederick R. Macaulay, Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States since 1856 (National Bureau of Economic Research, 1938), p. 10.

2) Economic and social problems have grown too rapidly in size and complexity for prompt and definite understanding by a young science whose tools are only gradually being perfected.

3) The public has not yet learned to look with healthy scepticism upon those who offer easy and quick panaceas.

4) Individuals who use the results of economic or social research will always be under temptation to discount and cast doubt upon any piece of work, no matter how scientific, if the results run counter to their economic, political, or social interests or prejudices.

The social scientist cannot do much directly in the way of changing the conditions under which he works. He is, however, under obligation to overcome the difficulties that arise not from the nature of the problems but from the method of attack.

Does the research effort emphasize the studies that are of central importance? Are the studies independently undertaken most helpfully related to one another? Are hypotheses submitted to pertinent empirical tests? Will the methods stand rigorous criticism? Are there sufficient opportunities for consultation and face-to-face criticism by leading workers and policy makers? Are the data sufficient? In his interpretation of results does the author overstep the bounds of unbiased evidence? Does he understand the difference between research and policy making? How may the supply of really competent research personnel be increased? Is the total organization for consultation and the planning of research in economics adequate?

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These, and many other questions, are germane to any effort to bring about a more effective understanding of social realities and a more intelligent appreciation of social problems. In formulating these questions we are aware that the application of economic research to practical problems always involves a process of judgment and of evaluation. The facts as such never determine policy. What we demand is that any suggestions concerning policy should be based upon and effectively supported by factual evidence clearly set forth,

that in the application of research to policy, itself a task from which the economist cannot be absolved, the distinction between factual evidence and inferential policy be made manifest, and that the process of inference from facts to policies be explicitly stated at every stage.

We are studying a changing scene, not a static order. Economic studies must therefore be continuous and not merely random and temporary excursions into a problem after its pressing importance has become obvious to the general public. In some fields definite and dependable conclusions can be attained only by means of elaborate statistical equipment which entails great expense. In others the problem itself can best be defined by consultation among the most competent students.

Consequently, the investigator needs such aid as carefully considered cooperative effort among universities and other research agencies can give. Universities should continue to be important centers of economic and social science research. But many universities are primarily intent upon pedagogical ends. Pedagogical exigencies push a university in the direction of covering all fields of knowledge with more or less equal emphasis. This is wholesome and necessary up to a certain point if curricula are to be well proportioned, whether for education or research. But in practice the emphasis is largely a matter of accident. No single institution is in a position to cover with equal thoroughness all the fields in which it offers courses. It will be well if in future there is developed a more conscious and thoroughgoing specialization so that in economics, for example, one institution may concentrate its research upon monetary questions, another on international economic policy, a third on labor, and so on. Meanwhile, collaboration by leading scientific workers in different institutions is needed to supplement the more or less accidental specialization practiced in each. This collaboration may take many forms, some of which are discussed in Part II. The experience of biologists at Wood's Hole during fifty years and of students of legal problems under the sponsorship of the American Institute of Law gives evidence of the benefits derivable from various forms of joint effort.

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1-1fss n rt y Anyone concerned with shaping economic research into a more serviceable tool cannot ignore the part that donors of funds play in making the total process effective or the reverse. Society is extremely fortunate in the generosity of foundations that give large amounts for disinterested economic research and it is pertinent to point out that the richest gains in any program of research can come only from long continuity of effort on one problem. The fruits both in development of personnel and in factual data attained are cunulative. As the Rockefeller Foundation for Medical Research demonstrates, long-range programs made possible by continuous aid are by far the most productive.

The National Bureau of Economic Research is able to restify to the advantages of the policies of those donors who have had the discernment to make long-range planning possible. In collaboration with leading universities it seeks now to advance economic research by more effective collaboration over a larger area. The experiment it initiated two years ago in cooperation with six universities is promising. In view of the recommendations of the Universities-National Bureau Committee that the continuation of the program be ensured by a permanent organization, we review the history and obectives in Part II, even though we repeat material from the annual reports for 1935 and 1936. In Part III the staff research program of the National Bureau is described. But this distinction between the staff and cooperative programs is mainly a matter of form. In reality the two interpenetrate to their mutual advantage.

COOPERATION in research may mean much or little. Everything depends upon the application. In a sense all research is cooperative, for every investigator utilizes the work of others. In a somewhat more definite sense there is cooperative research whenever those engaged in the same field of investigation consult one another or confer with respect to the prosecution of their respective projects or to the interpretation of their findings. A higher degree of collaboration is attained when a group of scholars pool their resources, their specialties, their aptitudes or approaches in a concerted attack upon some common problem.

Both types of cooperative research have taken shape in the National Bureau program. The conference method is illustrated in the Conferences on Price Research and on Research in National Income and Wealth. The National Bureau has also fostered and participated in the cooperative investigation of specific problems or subjects, joining for that purpose with other organizations particularly concerned with much the same problems and subjects. This pooling of resources obviously can be as varied in form and flexible in practice as the types of organization that unite their forces. Two very different forms have developed: the Committee on Financial Research and the Committee on Research in Fiscal Policy.

Experience during two years of cooperative experimentation has disclosed two essentials of effective work:

1) A scheme of organization that will assure the continuation of disinterested guidance and the widest possible collaboration and support. There must be some going concern that can sponsor projects and provide, when desirable, for the publication of reports. 2) A center with an adequate staff and equipment for conferences, the assembling and storage of research materials, and accommodation for collaborators from a distance.

The cooperative program was initiated by a resolution adopted on June 1, 1935 at the Planning Conference called by the National Bureau. In accordance with this resolution the Universities-National Bureau Committee was appointed to examine major research problems of common interest, to start one or more cooperative projects, and by the end of 1937 to appraise the results and possibilities and recommend future policy.

At its first meeting on September 7 and 8 the Committee selected two fields—prices and national income and wealth for immediate experiments in research on a cooperative basis. At its second meeting on January 15, 1937 it chose a third fiscal policy—and recommended the appointment of a subcommittee to devise means by which cooperative relations could best be maintained. On November 11, 1937 a subcommittee on organization for cooperative relations reviewed the developments and contributions of the program over the two years, formulated the future objectives of the program, and recommended that it be continued in close association with the National Bureau. The Universitics-National Bureau Committee at its third meeting, December 16, 1937, considered the report of the subcommittee and the modifications in the National Bureau organization entailed. It recommended:

1) That the present Universities-National Bureau Committee become a committee of the National Bureau, to be called the Committee on Cooperative Research. For the four years beginning January 1, 1938, this Committee shall include one representative, with an alternate, each to serve for two years and be eligible for reappointment, from each of the following:

University of California University of Chicago Columbia University Harvard University University of Michigan University of Minnesota University of North Carolina University of Pennsylvania Stanford University University of Wisconsin National Bureau of Economic Research

. . .

Upon recommendation by the Committee on Cooperative Research, other universities may be added to it, on the same basis, by action of the Board of Directors of the National Bureau.

The representatives and alternates shall be appointed by the Board of Directors of the National Bureau upon nomination by the appropriate department of the Universities. The National Bureau representative shall be the Director of Research; the alternate shall be from its research staff; both shall serve for two years and be eligible for reappointment.

Additional members may be appointed by the Board of Directors of the National Bureau to serve for various periods up to two years and be eligible for reappointment/The number of such additional members, however, shall be less than the number of University and National Bureau members together.

The Committee shall appoint its own officers and determine their terms of office.

The Committee on Cooperative Research shall guide the cooperative program. Its functions shall be to promote the fullest collaboration of research workers among university faculties, government agencies, and private organizations; to stimulate research; to plan long-range programs; to discover neglected problems and fields for investigation; to provide for the publication of reports; to participate in securing funds.

Decisions and recommendations of the Committee shall be presented to the Executive Committee and Board of Directors of the National Bureau for review and approval. The National Bureau itself shall then take the initiative in promoting the program and setting up the requisite organization. The chairman of each project shall report periodically on its program, progress, and plans to the Committee on Cooperative Research, which in turn shall report to the Board of Directors of the National Bureau.

For the renewal of the membership of the Committee on Cooperative Research after the expiration of the four-year term provided in the preceding paragraphs, the Board of Directors of the National Bureau shall assume the responsibility for determining the mode of selection. In making this decision, the Board shall consider the advisability of providing for some degree of rotation of University membership.

2) That the number of Directors of the National Bureau by University Appointment be increased to nine, by adding one Director each from Cornell University, the University of Minnesota and the University of North Carolina. At present the National Bureau has six Directors by University Appointment. Not only will the cooperative program be facilitated by the addition of the three recommended, but also the National Bureau will become more national in its representation.

3) That the Executive Committee of the National Bureau of Economic Research include one or more University representatives in addition to any University representatives who may be members ex officio.

At their annual meeting on February 7, 1938, the Directors of the National Bureau accepted the recommendations of the Committee.

The objectives of the cooperative program as formulated by the Committee are:

To bring together for periodic conference and consultation the ablest workers, area by area, in order that they may:

Formulate and define more precisely the more important research problems confronting the various branches of economics;

Improve methods of scientific research by face-to-face criticism of one another's methods;

Agree upon the most appropriate concepts, terminology, and methads of exposition;

Work out plans of research, calling attention to particular segments of each field that demand more primary data or more analytical study;

Exchange information among the various organizations and individuals carrying on or planning studies in each field, prevent overlapping, establish conditions for more intelligent division of work, and facilitate the planning of cooperative activity;

Stimulate cooperative research by initiating projects, by lending the facilities of each cooperative unit to the assistance of new undertakings; by encouraging specialized programs at the annual meetings of

the scientific societies; by helping to procure financial means for new investigations; by giving advice when new studies are being planned or throughout their progress; finally, by sponsoring cooperative studies in which several students or organizations collaborate.

To establish and maintain a library, data files, and other material for research in various fields.

We turn now to the four fields in which the cooperative program has thus far developed.

CONFERENCE ON PRICE RESEARCH

The Conference on Price Research was established in 1935 upon the recommendation of the Universities-National Bureau Committee. Eighty representatives from 43 organiza-tions have participated in its work. The members of the Conference come from the Universities of Chicago, Columbia, Harvard, Minnesota, and Pennsylvania; Food Research Institute of Stanford University; Bureaus of Agricultural Economics and of Labor Statistics; Central Statistical Board, Brookings Institution, and the National Bureau of Economic Research. At its April 1938 meeting two professional associations and one university were invited to become members. F. C. Mills is Chairman of the Executive Committee. The other members are: Anne Bezanson (University of Pennsylvania); M. A. Copeland (Central Statistical Board); E. S. Mason (Harvard University); Henry Schultz (University of Chicago); O. C. Stine (Bureau of Agricultural Economics); W. L. Thorp (Dun and Bradstreet); and C. L. Lee, Secretary.

As its first venture the Conference chose to explore the price problems of a selected group of industrics. The possibilities open to such industry studies were examined at a meeting, February 21, 1936, of a special committee of economists, accountants, and representatives of trade and industry. Their discussions led to the formulation of objectives to guide research in specific industries.

On May 15, 1936, the Executive Committee of the Conference authorized the appointment of committees on price research in five industries-steel, coal, textiles, automobiles,

and oil. These committees, composed in varying proportions of economists, industrialists, and representatives of Federal agencies, were set up during the months immediately following. Funds for their support were provided by a special grant to the National Bureau by the Twentieth Century Fund.

The industry committees thus created represent a novel experiment in cooperative planning and action by economists, industrialists, and government officials. The committees were not intended to be research bodies. It was felt that they could be most useful in the early stages of the program in coordinating work, interchanging ideas, advising and stimulating research by others. The problems encountered in the active prosecution of their assignments were widely different, and the courses followed by the five committees showed corresponding variations. The reports of the five industry committees are now in their final stages. One is in press, the others are expected to follow shortly. Initial separate publication in paper covers is contemplated, with later consolidation into a single cloth-bound volume.

Cooperative exploration in another field is being conducted by a committee organized as a result of a decision by the Conference at its 1937 meeting to emphasize aspects of price analysis that cut across industrial and trade divisions. The Committee on Distributional Costs and Pricing Policies at Retail is composed of: A. R. Burns (Columbia University), Chairman; Wroe Alderson (Curtis Publishing Company); E. H. Chamberlin (Harvard University); D. R. Craig (American Retail Federation); Reavis Cox (University of Pennsylvania); C. W. Dipman (The Progressive Grocer); J. P. Friedman (Touche, Niven and Company); H. I. Kleinhaus (Controllers' Congress, National Retail Dry Goods Association); Godfrey Lebhar (Chain Store Age); L. E. Moffat (Electrical Merchandising, McGraw-Hill Publications); W. L. Thorp (Dun and Bradstreet); Faith Williams (Cost of Living Division, Bureau of Labor Statistics); and P. S. Willis (Associated Grocery Manufacturers of America). Funds for the work of this Committee also were made available by a grant from the Twentieth Century Fund.

The objectives of the Committee arc similar to those of the five industry committees, namely: to define problems, appraise data, and suggest specific and general research projects. Recent changes in marketing methods and Federal and state legislation bearing on pricing procedures have given rise to many problems in this field that are of concern both to business men and to economists. It is expected that the Committee's survey will be completed by summer, and that a report growing out of its work will be ready to submit to the Directors of the National Bureau in the fall.

At its meeting on April 8 and 9 the Conference endorsed a proposal of the Executive Committee that in the future use be made of standing committees having broader functions and longer tenure than the *ad hoc* industry committees, whose functions were primarily exploratory. Each standing committee is to promote cooperative research in a given field of economic interest. To the extent that funds are available, it is proposed that each committee be assisted by a staff member giving all or part of his time to its work.

Among the subjects proposed for study by such standing committees were the relation of cost to price, procedures and principles of price control, consumer demand and prices, price inflexibility, price and quantity index numbers, the data of price research, the influence of price movements and price relations on the flow of investment, and quantity discounts and other forms of price differentiation. The members of the Conference were of the opinion that a permanent standing committee might well carry forward the work that has been started by the exploratory committee on the bituminous coal industry. Because of the part played by Federal control and the availability of valuable source materials on costs, prices, and quantities, coal offers exceptional opportunities for further fruitful research. If financial resources are available, additional standing committees will be set up to work on selected topics cutting across industrial lines.

Joel Dean of the University of Indiana was appointed Executive Secretary of the Conference, with special duties in connection with the work of the standing committees.

CONFERENCE ON RESEARCH IN NATIONAL INCOME AND WEALTH

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The Conference on Research in National Income and Wealth was organized soon after the Price Conference, also at the suggestion of the Universities-National Bureau Committee. It is composed of representatives from the Department of the Treasury; Bureaus of Agricultural Economics, of the Census. of Foreign and Domestic Commerce, and of Labor Statistics; National Resources Committee; Division of Research and Statistics of the Federal Deposit Insurance Corporation; Central Statistical Board: Board of Governors of the Federal Reserve System; Social Security Board; Chicago, Cincinnati, Columbia, Delaware, Harvard, Minnesota, Pennsvlvania, and Wisconsin Universities: Graduate Faculty of Political and Social Science, New School for Social Research: American Statistical Association; Brookings Institution: National Industrial Conference Board: Dun and Bradstreet: Dominion Bureau of Statistics; and the National Bureau of Economic Research. Sixty-two individuals from 14 organizations have participated in its work. To facilitate its program, Milton Friedman has been added to the National Bureau staff. His work on the distribution of income by size is closely related to the main line of emphasis of the Conference and he will devote a large part of his time to Conference activities. The Executive Committee for 1938-39 comprises: Simon Kuznets, Chairman; M. A. Copeland (Central Statistical Board); H. M. Groves (University of Wisconsin); W. W. Hewett (University of Cincinnati); Hildegarde Kneeland (National Resources Committee); R. R. Nathan (Bureau of Foreign and Domestic Commerce); O. C. Stine (Bureau of Agricultural Economics); Milton Friedman, Secretary.

The papers read under Conference auspices at the 1937 meetings of the American Economic and Statistical Associations were: National Income, Savings, and Investment, by Gottfried Haberler (Harvard University); Capital Gains in Income Theory and Taxation Policy, by W. W. Hewett and Roy Blough (University of Cincinnati); The Distribution of Family Incomes as Revealed by the Financial

Survey of Urban Housing, by D. L. Wickens. Those prepared for the April 1038 meeting of the Conference were: Problems in Estimating National Income arising from Production by Government, by G. C. Means (National Resources Committee); The Correction of Wealth and Income Estimates for Price Changes, by M. A. Copeland and E. M. Martin (Central Statistical Board). On the Measurement of National Wealth, by Simon Kuznets; Allocation of Benefits from Governmental Expenditures, by R. W. Nelson and Donald Jackson (Department of Agriculture). The reports presented at the meeting of the Associations were discussed by Hans Neisser, C. O. Hardy, A. W. Marget, H. M. Groves, R. M. Haig, Henry Simons, and George O. May. As was done last year with the papers that constitute Volume I of Studies in Income and Wealth, these reports and the discussion to which they gave rise will be submitted to the Directors of the National Bureau with the request that they be published as Volume II.

The attempts of the Conference to stimulate tabulation of data on personal incomes in the states whose coverage is more extensive than that of Federal income tax returns have been successful. The Wisconsin study covers 1929 through 1936, and the tabulation of the 1936 returns is expected to be ready by early summer. Delaware has undertaken a complete tabulation of the individual income tax returns for 1936, which will probably be finished by late summer or early autumn.

At its meeting on April 1 and 2, 1938, the Conference considered at length plans for the immediate future. The valuable results accruing from the stimulation of work by individual students make its continuation advisable. A list of problems that seem to demand and be susceptible of treatment by individual students will be drawn up, in the hope that persons competent and in a position to undertake their analysis will offer to do so.

One of the more extensive enterprises will be a survey of the data now available on the distribution of income and wealth by size among individuals and families. It is proposed

to conduct this survey by requesting the people closely associated and familiar with the various bodies of data in this field to submit brief reports on the character of such data, these reports taking into consideration questions that will be submitted to the reporters by a special committee of the Conference appointed to conduct the survey. This committee may attempt to summarize the results of the survey and indicate, if possible, the standards that it would be desirable to maintain in the future in the collection of any information intended to bear upon the distribution of income and wealth by size.

The Conference plans to maintain close contact with the studies of Wisconsin and Delaware income tax returns. There is a possibility that a sample study of the income returns for Delaware may be undertaken for the live file that goes back to 1924; but the prospects of this extension are largely dependent upon the results of the tabulation for 1936. The particular interest of the Delaware data lies in the fact that they represent a complete coverage of the income earning population of the state. The Conference has also expressed its willingness to establish contact with a projected study of state income in Minnesota; and its approval of and interest in a projected detailed study of the Federal income (both individual and corporate) and estate tax returns for 1935 and 1936.

In connection with the studies in Wisconsin and Delaware, which are already adding or will add in the near future valuable new data on the distribution of income, the next step is to stimulate adequate analysis of these data. Fortunately, in both states competent students are interested in the data and are planning to analyze them from various angles. A list of projects submitted by a group of the faculty of the University of Delaware was circulated among the Conference members at the April meeting. At Wisconsin a comparative study of the state and the Federal income tax laws has been made, and a sample of state and Federal returns (for identical individuals) closely analyzed to provide guidance in the collation of the state data with the Federal.

The Conference is naturally interested in furthering the analysis of these additional data as best it can. At its April meeting the Conference authorized the appointment of an Advisory Committee to keep in close touch with the various local studies and be available for consultation with the local groups whenever it seems desirable.

Among other plans discussed at the April meeting was a project for a survey of national income and wealth estimates in foreign countries. The plan is to enlist the cooperation of foreign students in the field and to request them to prepare reports on the measures available in their country, the solutions of the various controversial questions usually encountered in preparing such measures, and on the general indications of the structure and changes in the national economy that the measures provide. The realization of this plan would require considerable preparation by a Conference committee and a small outlay of funds to cover the honoraria to foreign contributors and the expenses of translation and editing. The Conference approved the plan but, in view of the variety of tasks before it in the immediate future, decided to wait until the other new projects are nearer completion.

The extension of the Conference's activity during the past year has been made possible by the cordial cooperation of its members; and the wholehearted approval of the new plans indicates a spirit of willing cooperation that is the prime factor in whatever success has been attained.

COMMITTEE ON FINANCIAL RESEARCH

The initiative for the third part of the cooperative program came from bankers. In response to an inquiry from the Association of Reserve City Bankers an Exploratory Committee on Financial Research was appointed in 1936. Its *Program of Financial Research*, published in two volumes in July 1937, furnished the basis for the projects about to be undertaken. In September 1937 the Association of Reserve City Bankers announced its approval of general plans for an impartial and scientific study of American banking, credit, and financial problems along the lines recommended by the Exploratory

Committee and the appointment of a Board of Trustees to facilitate the launching of specific investigations. The members are Winthrop W. Aldrich (Chairman, Chase National Bank of the City of New York), Carl W. Allendoerfer (Executive Vice President, First National Bank, Kansas City, Missouri), E. E. Brown (President, First National Bank of Chicago), S. Sloan Colt (President, Bankers Trust Company, New York City), Edward Elliott (Vice President, Security-First National Bank, Los Angeles), J. R. Leavell (President, Continental Illinois National Bank and Trust Company, Chicago), C. E. Spencer (Vice President, First National Bank, Boston), Robert Strickland (President, Trust Company of Georgia, Atlanta), Lyman E. Wakefield (President, First National Bank and Trust Company, Minneapolis). Mr. Aldrich has been elected Chairman, and Mr. Spencer Vice Chairman.

The Board of Trustees proposed that the National Bureau start the program with one of the studies outlined in Volume I of *A Program of Financial Research*: consumer credit and instalment financing. Accordingly, the National Bureau has engaged G. W. Blattner, formerly Assistant Director, Division of Research and Statistics, Board of Governors of the Federal Reserve System, to direct the study. Mr. Blattner and his staff will work at 'Hillside'.

Grants have been received from the Board of Trustees for this study and from the Rockefeller Foundation for the central planning and research staff for the program as a whole. A Committee on Financial Research will be appointed by the National Bureau to formulate plans and be responsible for the entire program.

COMMITTEE ON RESEARCH IN FISCAL POLICY

The Committee on Research in Fiscal Policy is the third field recommended by the Universities-National Bureau Committee. It was organized in 1937 under W. L. Crum as Chairman. The other members are: J. C. Bonbright (Columbia University); L. W. Douglas (Principal and Vice-Chancellor, McGill University); H. M. Groves (University of

Wisconsin); A. H. Hansen (Graduate School of Public Administration, Harvard University); Clarence Heer (University of North Carolina); A. W. Marget (University of Minnesota); George O. May (Price, Waterhouse and Company); Jacob Viner (University of Chicago); R. B. Warren (Case, Pomeroy and Company); J. H. Williams (Dean, Graduate School of Public Administration, Harvard University); W. J. Carson, Acting Secretary.

The Committee has met three times and has decided to follow a course similar to that of the Committee on Financial Research. Specifically its purposes are to (1) canvass the field of fiscal policy to determine the present state of knowledge regarding it; (2) consider and suggest ways in which information, materials, etc., pertaining to fiscal matters may be improved; (3) recommend research that should be undertaken and possibly to direct specific projects.

The Committee has selected the economic effects of Federal taxation as its first study, and tentatively suggested the relation of deficit financing to business fluctuations as a second. Preparatory to inaugurating work the field will be reviewed as soon as ways and means can be found. A bibliography of recent publications and materials bearing on those aspects of fiscal policy that fall within the purview of the Committee, and an inventory of the major research projects in process will be prepared, and a survey made of statistical sources, including the availability and adequacy of data pertaining to the fiscal affairs of state and local government agencies particularly.

NATIONAL INCOME

National Income by Industrial Source and Type of Income

Simon Kuznets has prepared comparable estimates of national income for 1919-35. Preliminary estimates were released in *Bulletin 66*, and in *National Income and Capital Formation*, 1919-1935 which summarizes and integrates the studies of national income, capital formation, utilizing also some of the results of the study of capital consumption. The detailed estimates, description of methods, and source material used are to appear in a separate volume. It is hoped that the manuscript will be ready for circulation among the Directors by the end of the summer.

The next task, which will be done chiefly by Lillian Epstein, is to prepare estimates for the pre-War period, at least for some basic years.

Income from Professional Practice

A preliminary draft of the report on income from professional practice was completed in the spring of 1936, but the pressure of other tasks has prevented Dr. Kuznets from revising it. Meanwhile, some additional sample data collected by the United States Department of Commerce have been made available to the National Bureau. Their inclusion seems advisable and the task of revising the report has, therefore, become even more formidable. This is to be entrusted to Mr. Friedman.

Capital Formation

The basic work on the measurement of capital formation for 1919-35 is completed. The results are summarized in Bulletin 66 and in National Income and Capital Formation, 1919-1935. The sources and methods used in deriving these estimates are described, and the underlying basic data are presented in Commodity Flow and Capital Formation, Volume I. Estimates for the pre-War period are to be prepared by W. H. Shaw.

Capital Consumption

A manuscript, Capital Consumption and Adjustment, has been completed by Solomon Fabricant, and has been sent to the Directors for their approval. As outlined at present, it has six sections: (1) scope and basic concepts; (2) capital consumption as measured by business enterprises; (3) accounting measures of capital consumption for other parts of the economic system; (4) economic measures of capital consumption; (5) capital adjustment in business enterprises; (6) capital assets of business enterprises. If no major changes are suggested, publication is expected in the summer.

This and other National Bureau studies have suggested the value of a broad attack upon the large body of economic data published in the financial statements of business concerns. If funds are available, it is hoped to analyze the balance sheets, income accounts, and surplus accounts of a large sample of corporations for 1900-37. The compilation of annual data on assets, liabilities, capital, net income, interest payments, dividends, and surplus adjustments would make possible long series on types of capital formation, sources of funds, and rates of profits, of various groups of companies classified by industry, size, etc. Cyclical and secular movements in these series would be examined, and interrelationships of various sorts tested. Particular attention would be paid to variation in behavior: the entire frequency distribution of each characteristic would be studied, rather than the

arithmetic mean alone. The data could probably not be assembled and analyzed in less than two years.

REAL ESTATE FINANCING AND ECONOMIC STABILITY

In Bulletin 65 D. L. Wickens and R. R. Foster released the first results of their study of real estate financing and economic stability, made at the request of the Social Science Research Council. Part of the material was obtained through a study of financing real properties on the Lower East Side of New York City and in Harlem in cooperation with the Mayor's Committee on City Planning. Since the publication of these estimates the United States Bureau of Labor Statistics has undertaken estimates of the volume of construction of urban residential property and plans to utilize the methods developed by the National Bureau. The Monthly Labor Review for January 1938 carried two supplementary articles on the subject, one by H. B. Byer of the Bureau of Labor Statistics, and one by Messrs. Wickens and Foster.

The manuscript for the statistical handbook on the economic position of urban real estate will soon be submitted to the Directors. It covers the value and rent of urban real estate and their relations; family income in relation to rent and value; residential construction and real property financing. The data are of interest not only to specialized students of real estate economics and to the business men and public agencies in the field, but also to all who approach economic problems realistically. In this important area of the economic system data have heretofore been very scarce.

The United States Bureau of the Census generously allowed the National Bureau access to its primary records for the special tabulations of values and rents essential for the estimate and distribution of total urban residential values in the United States.

This unit of the National Bureau's staff aided in preparing. the *Financial Survey of Urban Housing* for publication by the Department of Commerce in November 1937. It has cooperated with the United States Department of Agriculture, Farm Security Administration, the Central Statistical Board, the National Resources Committee, and with the adviser of the Federal Housing Administration. Mr. Wickens is a member of the Government's Central Housing Committee on Research and Statistics, and participates in the meetings of several of its subgroups.

PRICES AND PRODUCTION

The staff unit engaged in research on prices and production under F. C. Mills has carried forward basic measurements. The series of monthly index numbers relating to major clements of the price system, given in *Prices in Recession and Recovery* to June 1936, have been continued. They are not published currently but are sent monthly, by request, to interested departments of the Federal government.

The results of the 1935 Census of Manufactures, released during the year, have been utilized in extending the index numbers of production, productivity, and costs constructed for earlier Census years. Detailed measurements for a hundred industries have been computed, in addition to the general measurements for manufacturing industries as a whole, and for important categories of manufacturing industries. Although the Census compilations for 1931, 1933, and 1935 were not as complete in all respects as those for 1929, the records for these several years cover changes in production, employment, productivity, prices, and costs in manufacturing industries more fully than records for any similar period of recession and depression. These will be described in bulletin or handbook form during the year.

The comprehensive Census records for 1929 have been used in a cross-sectional study of the manufacturing process. The value of such a study, which would reveal the manner in which our productive resources were utilized in a given (though not necessarily a 'normal') year was discussed in the 1937 Report of the Executive Director. Charles A. Bliss has circulated his manuscript among the staff; after revision, it will be submitted to the Directors.

The intensive investigation of changes in production and 28

productivity, described below, will facilitate the study of the incidence of advances in productivity, carried on for some time by Dr. Mills' unit. Some general results obtained from study in this field were published in *Prices in Recession and Recovery*, but much more is to be done in tracing the relation between changes in industrial productivity, on the one hand, and changes in unit costs and selling prices, on the other. Knowledge concerning this relation will enable us to determine with some accuracy the manner in which the gains of industrial progress are divided. The price system plays a major role in this process of division. The general study of the functioning of prices in a modern industrial economy may properly include an investigation of this aspect of the operation of the price system.

PRODUCTION AND PRODUCTIVITY

Opportunity for the intensive study of changes in production and productivity in the United States for 1914-37, and for an exploration of their implications, has been afforded by a grant from the Maurice and Laura Falk Foundation for the cighteen-month period, January 1938 to June 1939. It will be conducted by Mr. Fabricant, under the supervision of a Committee composed of F. C. Mills, Chairman; A. F. Burns, N. I. Stone, and Leo Wolman.

Specific topics to be covered include measurement of:

Changes in the volume and composition of production. Production will be measured in both dollars and physical terms; and will be analyzed by types of product and by industries.

Changes in the number and industrial distribution of workers. Salaried workers and entrepreneurs will be covered, as well as wage earners. Changing hours of labor will also be discussed.

Changes in the amount of capital equipment. Use will be made of the measures constructed in other National Bureau studies, and of other available data, which will be thoroughly tested and, if possible, allowance made for price changes.

The level of and changes in productivity. Output per wage earner, per salaried employee, per dollar of capital and other measures of productivity will be computed. Industrial differences in these ratios and in their changes will be considered. The study will aim to appraise and interpret the entire record of changing volume of output, changing character of goods and services produced, rising efficiency of labor and enterprise, steadily increasing accumulations of capital and advancing industrial productivity.

Changing Productivity in Five Industries

In the study of changing productivity in five selected industries, conducted cooperatively by the National Bureau of Economic Research and the National Research Project of the Works Progress Administration under the direction of Harry Jerome, the field surveys covering about 400 plants, and the editing and analysis of schedules have been completed. First drafts of separate monographs on each industry -Portland cement, brick and tile, wheat flour, lumber, and beet sugar-with a supplementary special survey of the production of machinery for use in these industries, have been prepared and are now in the process of revision and review. A summary volume will integrate the results of the five industries surveys. Much of the material will be of great value to the production and productivity project.

LABOR

Leo Wolman, on sabbatical leave from Columbia University during the first semester of the academic year 1937-38, has been able to devote himself to putting available statistical data on wage rates and earnings of American labor into a form in which they can be interpreted and to attempting to supply gaps, particularly in building wages. The material is so voluminous that he has decided to treat it in two separate books: a first on wage rates, and a second on the relation between rates of wages and annual earnings, payrolls, and employment. The first volume will start with an historical survey of wage rates from 1890 to 1914, largely drawn from secondary sources, such as the writings of P. H. Douglas and P. F. Brissenden, but it will contain observations, interpretations, and criticisms based on National Bureau records. How wage rates moved from 1914 through 1937 will then be studied in detail, by large categories of industry and for important single industries and occupations. The attempt will be made to consider the circumstances attending changes in wage rates and the relation of these changes to business cycles. Consideration of changes over the long period, 1890 through 1037, in wholesale prices and the cost of living will be followed by a discussion of changes in the wage structure, principally since 1014. The changing relations among wage rates will be treated by industries, geographical areas, among skilled, semi-skilled, and unskilled labor, between men and women, and in union and non-union industries. To compare the movement of wage rates and changes in wage structure in the United States and several foreign countries, particularly Great Britain, Canada, and Australia, Dr. Wolman will use only readily available material on foreign wages, since neither time nor resources make independent investigations possible.

Meredith B. Givens' study of the measurement of unemployment was, as reported last year, interrupted from 1933 to 1936 by work with the Committee on Government Statistics and the Central Statistical Board. Meanwhile, new materials have become available, various estimators have been active, and the requirements of the unemployment compensation program have created new needs for reliable measurement, both current and in retrospect. Dr. Givens will reconstruct the National Bureau's original estimates for 1920–27, linking from the 1920 to the 1930 Census data, will extend the estimates to the present, and will consider methodology.

BUSINESS CYCLES

The analysis of statistical series to determine what cyclical behavior is characteristic of different economic processes has gone on steadily throughout 1937. The types of activity and the number of series covered by the analyses completed by December 31, 1937 are as follows:

| | Types of activity | Numbe r of series | | - 7 [7 | Number of series |
|-----|-----------------------|---------------------------------|------|--------------------|---------------------|
| 1 | Production | 246 | VIII | Personal incomes | 83 |
| 11 | Construction | 172 | IX | Profits and losses | 39 |
| 111 | Transportation | 40 | х | Savings and | |
| IV | Prices | 115 | | investments | 23 |
| v | Stocks of | | XI | Security markets | 23 |
| | commoditics | 28 | XII | Volume of trade | 31 |
| VI | Merchandising | 35 | _ | Interest rates | 29 |
| VII | Foreign trade | 34 | XIV | Money and banking | ng 89 |

Of these 987 series, 202 are in annual, 93 in quarterly, and 692 in monthly form; 726 come from the United States, 113 from Great Britain, 74 from France, and 74 from Germany. At the end of the year there were 91 series in the files awaiting analysis. Current experience in preparing the results for publication indicates that considerable additions must be made to this body of materials before the questions raised by what is already in hand can be answered intelligently.

Since business cycles consist of roughly simultaneous expansions and contractions of many economic activities that interact upon one another, the whole congeries of movements must be familiar before any part can be treated adequately. Also, the National Bureau's standard methods of measuring cyclical behavior must be adapted to the peculiarities presented by all the varieties of time series used. Thus the whole must be known in order to understand the parts, and the parts must be understood in order to grasp the whole. As details are worked out, the implications of fundamental conceptions and the interpretation of the statistical results yielded by the analytic technique must be reconsidered time and again. Two preliminary drafts of what was planned as a volume to be called Business Cycles, Analysis of Cyclical Behavior have been written-drafts that are now useful chiefly in indicating what will come later as the earlier parts are reworked in more thorough fashion. And first plans for publication are now found to be ill suited to the materials that should be presented. The most valuable results can be obtained by monographic treatment of different fields by specialists working in close harmony with members of the

staff who know the technique thoroughly and who have a general knowledge of the results it yields in all the fields covered.

Plans for this year call for starting a series of 'Studies of ' Cyclical Behavior' with two numbers under the joint authorship of Dr. Mitchell and Dr. Burns. The first monograph will give a full technical account of the National Bureau's method of measuring cyclical behavior supplemented by a critique of the results; the second will deal with the cyclical behavior characteristic of the production of commodities, construction work, and transportation. Meanwhile arrangements are being made for the writing of several other monographs by highly competent specialists.

Work on the final objective, a theory of business cycles based primarily upon analysis of actual experience, cannot be completed before the monographic studies have been made. But it can be begun without waiting for the end of the earlier stage. Our expectation is that Dr. Burns will devote most of his time to work upon the Studies of Cyclical Behavior while Dr. Mitchell will devote his attention primarily to the theoretical volume.

Agriculture and Business Cycles

In Bulletin 67, Technical Progress and Agricultural Depression, Eugen Altschul and Frederick Strauss presented some of their tentative findings concerning the nature of agricultural depressions. In particular, they attempted to appraise the role that mechanization and business cycles played in the depression in wheat and cotton farming since the War. Dr. Altschul is writing a book in which he will analyze the shortrun as well as the long-run fluctuations in agricultural production as a whole, and their relation to business cycles.

Changing Balance between Agriculture and Industry

The study of the changing balance between agriculture and industry that was started early in 1937 jointly by the Bureau of Agricultural Economics of the United States Department of Agriculture and the National Bureau is being conducted

by Frederick Strauss. It is concerned with the analysis of changes in basic long-run relationships between agriculture and industry in the United States since the beginning of the nineteenth century. The period to the Civil War cannot be treated in detail, since the statistical material is very scanty. However, the essential features can be brought out. From 1866 on, when crop statistics are available, the analysis takes into account all series on production, foreign trade, prices, and income that are pertinent. This part of the analysis makes it possible to establish various periods that are marked by differing relationships between agriculture and industry.

To explain the changes, factors that exert specific influences on production, prices, and income in the various branches of agriculture, such as staple foodstuffs (wheat, potatoes, dry beans, etc.), foodstuffs whose consumption increases with a rising standard of living (meat, dairy products, vegetables, fruits), and industrial raw materials (cotton, flax, wool), must be considered. Therefore, it was necessary to bring together and to compute adequate data on farm income, farm prices, and production for these various groups and for 'agriculture as a whole'. This work has been greatly facilitated through the help of specialists in the Department of Agriculture. Yearly income data and yearly indexes of prices and production will soon be ready for release. In addition, most of the necessary historical and statistical material has been collected and worked up.

The long-run relationships will be analyzed briefly within the next few months. A much more detailed analysis will be prepared within the next fiscal year.

THE GOLD STANDARD

William Adams Brown, Jr. has completed his thorough analysis of the disintegration of the 'international gold standard' during the World War, of the tentative efforts that were made on the return of peace to reestablish the pre-War relations, and of the dramatic monetary developments in the leading commercial countries during the nineteen thirties. This discussion has an importance and timeliness that make prompt publication desirable. The manuscript has been submitted to the Director of Research and will soon be sent to the Directors.

Carel J. Smit's portion of the investigation deals primarily, though not exclusively, with the workings of the supposedly 'automatic' gold standards of pre-War days. It rests in large measure upon a close study of economic movements of various types as revealed by financial statistics. Mr. Smit reports that his statistical materials are substantially in order, and that the completion of his manuscript will not require many months.

While these two investigations have been made in accordance with a unified plan and each derives its significance largely from the other, convenience calls for publication in two volumes and there seems to be no serious objection to isouing first the volume dealing with the later period. T HROUGH its programs of research in national income, capital formation and consumption, real estate financing and economic stability, prices, production, and productivity, labor, business cycles, finance and fiscal policy, the National Bureau has assembled a rich collection of material on many basic economic problems. In addition, the techniques it has evolved in analyzing data and its experience in interpreting them make it a research laboratory affording unusual opportunities for study.

Graduate schools give formal training in the social sciences up to the point at which students take their doctor's degrees. After they have passed this stage, young scholars often suffer from lack of opportunities for following further inquiries upon which they have made promising starts. Wherever he is employed, a junior member of a staff is usually assigned routine duties consuming so much time and energy that he can accomplish little original research. Just at the time when he is most likely to make significant discoveries, or to lay the basis for making them, the fledgling investigator is diverted from scientific work to elementary teaching or minor executive tasks. This defect in present methods of developing the scientific personnel on whose thinking so much depends is widely recognized. Various attempts have been made by foundations and national councils of scientific men to help especially gifted men at this critical stage of their careers. The National Bureau joins in these efforts to the extent of its resources. Carnegie Corporation grants-in-aid make it possible to resume the appointment of a few research associates -a practice that the National Bureau reluctantly discontinued during the Great Depression for lack of funds. By

selecting candidates of high promise and giving them an opportunity to work with members of its staff, the National Bureau hopes that it may not only be of help to the appointees, but also extend its cooperation with universities through close association with junior members of their faculties, and make its own program more effective.

V 'Hillside'

So far as it has had desk space at its disposal, the National Bureau has offered qualified investigators access to its files and opportunities for consulting with its staff. It would like to make workers of proven ability who are studying any problem within its field in effect visiting members of its staff for considerable periods. But limits are set upon the services it can render to visitors. The work that the staff can accomplish will be gravely impeded if much of their time is consumed by calls for information and advice. And the problem of working space at Columbus Circle has become acute.

Fortunately the limitation imposed by inadequate space has been relaxed, though not removed, through the acquisition of 'Hillside'. With a grant from the Carnegie Corporation this center is being equipped and can be operated for one year. 'Hillside' will become headquarters for the banking studies that are now being organized. Some room remains available for other uses, and the National Bureau is in a better position than formerly to meet the needs of investigators on sabbatical leave from universities, the holders of research fellowships, recipients of grants-in-aid of research, government employees charged with special investigations, 'and other scholars working in its field.

VI Subscriptions

For the two-fold purpose of widening the distribution of its publications and of broadening its financial support, the National Bureau undertook a special subscriptions-promotion campaign in June 1936. The number of subscribers contributing \$25 or more annually had decreased from a peak of 507 in 1931 to 20}. At present its \$25 subscribers number 334, in addition to 501 Associates, dispersed throughout most of the states and in 26 foreign countries. Annual income from these two groups—exclusive of donations above \$25 has increased from approximately \$5,000 to approximately \$11,000.

Subscribers who contribute \$25 or more a year receive all publications before release to the public. Associates receive the *Bulletin* and the annual report, and are entitled to buy copies of National Bureau books at a discount of 33-1/3 per cent. The first *Bulletin* of the 1938 series is by W. C. Mitchell and A. F. Burns: Statistical Indicators of Cyclical Revivals. Subjects of the other four issues will probably be:

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