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# A Record of 1944 and Plans for 1945

## INCOME AND CAPITAL FORMATION

### NATIONAL PRODUCT IN WARTIME

Just published as Volume 44 of the National Bureau series, this monograph discusses the treatment of war output in national product (a revised version of a paper submitted to the April 1944 meeting of the Income Conference); presents an analysis of national product for 1939-43 (a revised and extended version of *Occasional Paper 17*); and compares national product in World Wars I and II.

### BASIC WORK ON COMMODITY FLOW

William H. Shaw's report on *Finished Output since 1869* has been approved and will be published in the National Bureau series after the author has carried out certain revisions.

### NATIONAL PRODUCT AND CAPITAL FORMATION SINCE 1869

The report now in preparation, a collection of tables and notes for reference, with a brief text summarizing the basic procedures and providing a few test comparisons with other estimates, has four parts: annual estimates, 1919-43; decade estimates, 1869-1938; a study of sample data on consumers' budgets, underlying the long term estimates of the proportions of services in the total flow of goods to consumers; a study of past censuses of wealth, classifying capital formation by categories of users.

### INCOME FROM INDEPENDENT PROFESSIONAL PRACTICE

Now that changes suggested by some Directors have been completed and accepted, this report will be published this spring as Volume 45 of the National Bureau series.

### SHIFTS IN THE DISTRIBUTION OF INCOME PAYMENTS BY TYPE AND SIZE

It has been decided to combine the analysis of shifts in income payments by type with that of shifts in the distribution by size. Study of the latter is based on comparisons of income receipts of various types reported on federal income tax returns with total income payments by type. When the analysis is completed, it should be possible to trace shifts in the distribution of income payments by size to shifts in the relative importance of various

types; the latter can then be traced to shifts in the relative contribution of various industries.

The rather complex calculations prerequisite to this analysis have progressed rapidly, but may not be completed before summer. The results can then be incorporated in a monograph, of which at least a preliminary draft should be ready by the end of the year.

#### NATIONAL INCOME—A SUMMARY OF FINDINGS

A brief summary of the major findings in the fields of national income and capital formation is being prepared for the twenty-fifth anniversary of the National Bureau. SIMON KUZNETS

#### CONFERENCE ON RESEARCH IN INCOME AND WEALTH

The Conference on Research in Income and Wealth met in April 1944 to discuss concepts and methods of income measurement in different countries, and problems involved in international comparisons; some of the special problems of analyzing national incomes accentuated by the war effort, and their significance for postwar measurements; and the work of federal agencies in the field of the distribution of personal incomes by size. Most of the papers presented at the Conference have been edited for publication as Volume Eight of *Studies in Income and Wealth*.

Horst Mendershausen's *Changes in Income Distribution during the Great Depression*, Volume Seven of the series, is now in press. *Analyses of Minnesota Incomes, 1938-39*, in which the Conference has been interested, appeared in 1944. The manuscript of the analytical study of Wisconsin incomes has been completed and is now being edited. Work on the Compendium of National Income in Various Countries has been continued by Paul Studenski and Julius Wyler, with the advice and assistance of a Conference committee. Prospects are that the major part of the work will be completed in 1945 and perhaps the manuscript for one volume will be ready for publication by the end of the year.

The Conference is cooperating with several federal agencies, through an advisory committee, on the development of coordinated efforts in collecting and analyzing data on the size distribution of personal incomes and consumer savings and ex-

penditures. This committee, assisted by a staff member of the Division of Statistical Standards, Bureau of the Budget, has acted as adviser to this and other agencies of the federal government concerned with the program for collecting and analyzing such statistics.

Agenda are being prepared for the 1945 meeting to continue consideration of problems in international comparisons of income estimates and the work of several agencies in estimating and forecasting postwar levels of national product, income and expenditures, and plans for studying shifts in the size distribution of income and their effects upon the disposition of personal incomes.

O. C. STINE  
Chairman

#### BUSINESS CYCLES

I have devoted the greater part of the year to a final revision of *Measuring Business Cycles*, which is now in press. After clearing my desk of several jobs that require immediate attention, I shall resume the study of the cyclical behavior of investment.

ARTHUR F. BURNS

Aside from supervising the activities of the library and computing staff, which consisted principally of bringing up to date and revising the cyclical analyses of the 800-odd monthly and quarterly series for the United States in the business cycles collection, I prepared an article supplementing *Occasional Paper 18* and a memorandum on the dating of French business cycles 1932-38. The article, published in the *Journal of the American Statistical Association* (Sept. 1944), brings up to 1943 the index of production presented in *Occasional Paper 18*, and ventures some further remarks on the problem of measuring production in wartime. The memorandum deals with a problem of a somewhat similar sort. The usual patterns of relations among economic activities were strikingly altered in France in 1932-38, and the disruption of the usual relations between the parts and the whole renders the problem of measuring the whole (in this case, the business cycle) especially hazardous. Nevertheless, since for our purpose the dates of peaks and troughs of business cycles

are primarily working tools to facilitate analysis of 'what happened', and since a fair case can be made for the dates selected, we decided upon the following monthly, quarterly, and annual reference dates for France.

	MONTHLY	QUARTERLY	ANNUAL
Trough	July 1932	III 1932	1932
Peak	July 1933	III 1933	1933
Trough	April 1935	I 1935	1935
Peak	June 1937	II 1937	1937
Trough	Aug. 1938	III 1938	1938

GEOFFREY H. MOORE

#### TRANSPORTATION AND COMMUNICATION

In 1944 much of our work centered on testing the validity, in the railway industry, of the theory that costs per unit of business done tend to rise in late expansion and fall in late contraction, and that unit profits tend to follow this pattern inversely. The tendency is supposed to arise in part from changes in the physical relations between output and the quantities of labor and materials used in producing it. We were able to study the relation between traffic and man-hours, and also traffic and locomotive fuel consumed, in four cycles of traffic, 1921-38. In three the productivity of labor was highest at the end of expansion, in two it was lowest at the end of contraction. The most rapid gains in output per man-hour, however, came early in the rising phases of traffic, although the most rapid losses did not consistently occur early in the falling phases. We also found, in accordance with expectation, that overtime became relatively more important in expansion and less important in contraction. But straight time that must be paid for although it cannot be used tended to become relatively less important in the former and relatively more important in the latter. As to locomotive fuel, consumption per ton-mile or per passenger-mile did not regularly rise in late expansion or fall in late contraction. Here again, the most rapid improvement in economy occurred at the beginning of expansion; in passenger service, but not in freight service, the most rapid rise in consumption per traffic unit came early in contraction.

Unit profits are also affected by changes in the ratio of prices received to prices and wage rates paid. The relation between rates and fares on the one hand and prices paid for railway

materials and supplies on the other seems to alter over a phase as a whole in a way that is unfavorable to unit profits in expansion and favorable in contraction, but the evidence on prices paid is not good enough to indicate changes in direction within a phase. In four cycles there seemed to be no repetitive intra-phase pattern in the ratio of revenue per traffic unit to average hourly earnings. Since 1921 there has been a downward trend in this ratio, somewhat steeper and more nearly unbroken in expansions than in contractions.

We can follow unit costs and profits themselves through the various stages of eight cycles. The decline in costs with which an expansion, and the rise with which a contraction usually began was not consistently reversed before the end, although it was in some cycles. Nor were the initial rises and falls in profits consistently reversed before the close of expansions and contractions respectively. But the most rapid decline in costs and rise in profits commonly occurred in the early stages of traffic growth, and the most rapid rise in costs and fall in profits in the early stages of traffic shrinkage.

Apparently, variations in physical relations were usually more important than those in price relations (including price-wage relations) in their effect on operating profit. Variations in aggregate volume were usually more important than those in unit net earnings before taxes in their effect on aggregate profit. The latter sometimes continued to increase after profit per unit of traffic began to fall; and probably the rate of return on existing investment also continued to increase. Depreciation, taxes, and operating rents were rather inflexible in the aggregate; and the percentage variation in profits after deducting such items was ordinarily greater than that in profits before deductions.

We also did some further work on the relation between traffic and business at large, and on variations in the intensity of equipment utilization.

I have outlined in some detail, and written large portions of, a monograph tentatively entitled 'American Transportation in Prosperity and Depression'. Much checking of data and computations, as well as re-drafting, remain to be done, but I expect to complete the manuscript early in 1945. Most of the material for a similar volume on foreign experience is at hand, although some valuable British operating data are still to be garnered.

For the present I am calling it 'Transport and the Trade Cycle in Western Europe'. The data on cycles in the communications industry probably do not justify more than an *Occasional Paper*. I hope to prepare the results of both studies for publication by the middle of 1946.

THOR HULTGREN

#### INCORPORATION OF BUSINESS ENTERPRISES

Progress on the study of business incorporations is slow. However, a complete draft should be ready by summer.

G. HEBERTON EVANS, JR.

*Johns Hopkins University*

#### THE CONSUMPTION AND PRODUCTION OF CONSUMER GOODS

Work on the pilot study of the shoe industry has continued throughout the year. The first part of the story, analyzing the relation of changing consumer income to changing purchases of shoes, has, as reported last year, been written.

##### *Estimates of shoe sales*

A long appendix, recently completed, describes the computations that yielded our monthly estimates of shoes sold to final consumers 1926-41, and essays a critical review of the basic data and their utilization. A rough idea of the multitude of difficulties encountered may be gleaned from the fact that the appendix runs to 140 pages. Much space, of course, went into dissecting and weighing the material. This detailed examination was motivated primarily by the desire to evaluate the possibility of preparing estimates for other commodities. Particularly did it seem useful to summon all evidence on the worth of the departmental statistics of department stores. One is left with two impressions: first, that the shoe sales figures are not bad and probably record with reasonable accuracy the approximate level as well as the timing and amplitude of the cyclical and subcyclical fluctuations in consumers' purchases of shoes. Second, that the chances are slim of building equally satisfactory estimates of sales for most other consumer goods. However, if objectives are limited to recording variations among commodities in the timing and, very roughly, the amplitude of fluctuations, and no attempt made to estimate total sales, data for sales of various departments of department stores provide a particularly promising source of information. The detailed scrutiny of

problems related to estimating sales of one commodity has also suggested several ways in which our currently obtained records of consumers' purchases might well be improved.

### *Influence of consumption on production*

A great deal of time has been spent in examining trade annals and in preparing and analyzing almost a hundred time series which will be used in the second half of the book—the story of changes in the production and stocks of shoes, leather and hides and their relation to changing sales of finished shoes.

These materials are tantalizing since the records we have are never the ones we need. We have, for example, a synthetic record of receipts of shoes by department stores, but we would like to know about orders of shoes or even about the 'off the record' advice communicated by buyers to manufacturers over their cocktails. We have a record of deliveries of leather to leather goods manufacturers but we would like to know how far ahead orders had been placed and whether manufacturers had been trying to hasten or stall off deliveries. One is, in other words, continuously groping toward an intangible counterpart of the tangible record of how changing demand affects and is affected by changing supply. Certain ratios, particularly of sales to stock, as well as information from trade chronicles and discussion with people in the business help to piece out the story.

In assembling and analyzing these materials, it has seemed wise not to confine the analysis strictly to recognized cyclical movements. Were this done, observation would be limited to one, two, or occasionally three cycles. Most of the material seems to show minor fluctuations, about 13 for the period the data cover, which, either because they are too brief or are too narrow in amplitude, would not be classed as 'specific cycles'. These minor or 'subcyclical' movements have for most of the shoe and leather data a roughly synchronized timing that may be formalized into a reference pattern. The amplitude and timing tests to which the data have been subjected are based on this specially devised chronology. It serves both to multiply timing comparisons and to isolate phenomena that are characteristic of cyclical but not of subcyclical movements. One such phenomenon is readily apparent—fluctuations in the price of finished shoes; other sorts of differentiation are also possible. From the

shoe industry alone we cannot hope to learn much about how and why subcycles differ from cycles. But certainly it is a question to which one would like an answer, especially when, after prolonged immersion in trade journals and trade talk one grows more and more impressed with the normalcy of change: fluctuations of varied sorts in individual data are the routine expectation of the wary. This thought, if pursued, sets up its own vibrations which impinge upon the concept of a too rigidly defined 'business cycle'.

*The 'propensity' to consume*

Another phase of this year's work has concerned the 'propensity' to consume. The relation of total consumption to consumer income seemed a useful background for the relation of expenditure on shoes to consumer income. Accordingly, while some of the calculations were being completed for the shoe and leather series, a review of the literature on consumer saving (or total consumer expenditure) and its relation to income was undertaken. A study of these materials and of the readily available time series and budgetary data leads to two conclusions: (1) That we cannot, at present, describe with confidence the shape of the consumer income-consumption function in the United States. (2) That a negative characterization may be made—it is almost surely not sufficiently stable to justify the widely held assumption that short run changes in the function are negligible. A brief memorandum has been prepared suggesting how one might perhaps proceed from these negative to positive conclusions.

RUTH P. MACK

INTERNATIONAL FINANCIAL TRANSACTIONS

By the end of 1944 my manuscript had grown to approximately 300 pages, not counting tables, charts, etc. This constitutes perhaps 40 to 50 per cent of the entire monograph which I hope to finish by the end of 1945, though statistical complications of the nature encountered during 1944 may retard writing. In writing, the vastness and intricacy of the problem have become more obvious in all their implications. It is quite evident that the phenomena of the international interactions of business cycles, even if studied from one single viewpoint and confined to one particular field (which, in this case, happens to be that of international financial transactions), are so complex that many studies by many

different investigators should be undertaken. They would undoubtedly bring to the problem many viewpoints that cannot be followed up or even considered at present. The investigator is confronted with accurate information in some fields and a total lack of information in others no less important. Furthermore, the manuscript is written on the basis of a very simple and therefore not exhaustive statistical approach. It might be reworked—indeed I have become increasingly aware of the great necessity for such a reworking—with the far more advanced statistical techniques. However, this is a study in itself and it remains to be seen how and when it can be carried out.

OSKAR MORGENSTERN

### LABOR

The main enterprises of this section—(1) a study of the relation of wages to business conditions and (2) changes in union membership—were pushed forward during the year. An essay in preparation dealing with certain features of the history of wage rates as illustrated by their cyclical behavior, their secular trend, their movement during war and early postwar periods, and the significance of structural changes in wage rates. This study, which will be available by the middle of 1945, should serve as an introduction to a contemplated large volume on the same subject.

The data on changes in union membership since 1935 are virtually complete and are now being extended through 1944. The findings of this inquiry will cover developments during the period of the rise of the C.I.O. and other independent unions and during this war.

Gerhard Bry continued the collection of materials for a history of German wages during the last half-century.

Plans for expanding the work on labor and related questions, which can be initiated when the end of the war releases competent members of the staff, are being made.

An unfinished study of English wages, the material for which has been collected and analyzed, will be completed when Lorie Tarshis returns from war work.

LEO WOLMAN

## PRICES

The price unit concentrated in 1944 on studying cyclical patterns in the behavior of prices, on the interaction of prices and quantities of individual commodities in business cycles, and on fluctuations in the monetary values of individual commodities in business cycles. In dealing with the interaction of prices and quantities we are concerned with the operations of commodity markets, and with the manner in which producers of different kinds of goods effect adjustment to the forces of business cycles. In some sectors of the economy adjustments are made through changes in quantities produced and marketed. In others adaptations are effected through prices, with no or only slight modification in the flow of physical goods. The economic and social consequences of these two modes of adjustment are, of course, widely different. In seeking light on how prices and quantities interact in various markets during business cycles, we are exploring these different methods of adaptation as they are revealed in the working of the price-quantity mechanism.

A second major objective is to trace changes in monetary payments arising from the exchange of goods. Alternating expansions and contractions of the aggregate values of goods and services flowing from producer to user are one of the most direct manifestations of business cycles. Such fluctuations are found in the grand stream of gross national product, in consumers' outlay, in the value of capital goods produced and in various other categories of commodities and services. Similar fluctuations are found in the monetary values of individual commodities. It is these with which we are immediately concerned. From one point of view these commodity values are measures of the revenue received by the seller; from another, they measure the monetary outlay of the buyer. This stream of payments, flowing from buyer to seller, reflects in its fluctuations alterations in the number of units of physical goods exchanged and, as well, all modifications in the average unit prices of these goods. Cyclical changes in these payments play a central role in business cycles.

In the investigation of the price mechanism and of revenue and outlay changes in business cycles, we have used three frames of reference. In the first place we have examined the behavior

of prices, quantities, and monetary payments in the framework of reference cycles; i.e., during cycles in general business. The movements of commodity prices and of the monetary values of commodities are then studied in a framework provided by specific cycles in physical quantities produced, marketed, or consumed. Finally, movements of physical quantities and of commodity values are examined in the framework of specific cycles in commodity prices. In each case we are concerned with the degree to which the monetary payments and their component factors are affected by the business or specific cycles that provide the frame of reference, and with the interpretation of the patterns of observed behavior.

The detailed statistical work has now been completed. A monograph presenting the evidence and outlining the findings of this study should be ready for consideration by the Directors in 1945.

FREDERICK C. MILLS

#### CONFERENCE ON PRICE RESEARCH

The Conference on Price Research has thirty members, from business, government agencies, and universities. Concerned with methods, problems, and policies in the determination and the control of prices, it carries on its activities through an annual meeting and standing committees. Three committees were active during 1944: Price Control and Rationing, Governmental Price Control, and Postwar Price Problems.

The 1944 annual meeting, in New York on May 5 and 6, was devoted to a discussion of postwar price problems. Papers were presented by J. Maurice Clark, Columbia University, on 'Public Policy in the Decontrol of Prices'; by John D. Sumner, Office of Price Administration, on 'Public Policy in the Disposition of Publicly-Owned Inventories'; by Theodore W. Schultz, University of Chicago, on 'The Relation between Agricultural and Nonagricultural Prices, with Special Reference to the Employment of Support Prices for Agricultural Products'; and by Jacob Marschak, Cowles Commission, on 'Price Flexibility and Income Maintenance in the Transition from War to Peace Production'. Reports were received from the standing committees, and Aryness Joy and Lester Kellogg reported on the current activities of the Bureau of Labor Statistics. A condensation of the papers

and the discussion was mimeographed and distributed to members and friends of the Conference. The full text of Mr. Sumner's paper was published in the *American Economic Review* for September 1944.

The Committee on Price Control and Rationing, under the joint chairmanship of Jacob Marschak and George Katona, has completed its study of business adjustments to the impact of price control and rationing among producers and distributors of consumer goods and services in the Chicago area 1942-44. Organized jointly by the Cowles Commission for Research in Economics and the Conference on Price Research, this committee has been financed by grants from the Cowles Commission, the Conference, and the Rockefeller Foundation. Its activities will be concluded, in the near future, with the publication, under the auspices of the Cowles Commission, of Mr. Katona's monograph, 'Price Control and Business'.

The Committee on Governmental Price Control, under the chairmanship of Waldo Fisher, is studying the determination of minimum prices under the Bituminous Coal Act of 1937. Substantial sections of a report have been completed.

The Committee on Postwar Price Problems, with Clair Wilcox as Chairman, met several times to formulate the problems presented for discussion at the 1944 meeting of the Conference. It is now looking into the possibility of conserving the part of the experience of the Office of Price Administration that may contribute to a better understanding of how prices are usually determined and to a solution of some of the persisting problems of price theory.

CLAIR WILCOX  
*Chairman*

#### PRODUCTION AND PRODUCTIVITY

Work is proceeding on an *Occasional Paper* which will describe the changes, between the end of the nineteenth century and the outbreak of this war, in the economy with which labor has been utilized in basic American industry—agriculture, mining, manufacturing, transportation and public utilities. The significance of the difference between these changes and corresponding changes in national product per capita will be explored.

A first draft of a manuscript on the electric and gas utilities

has been prepared by J. M. Gould. It is now being revised to take account of suggestions made by the staff, and it is hoped that it can be presented to the Directors for review before long.

Owing to the absence of Harold Barger, now serving as an officer in the U.S. Army, the work being done by him and J. M. Gould on the transportation industries was suspended during most of last year. The possibility of reviving some of the work started by Barger and Gould and completing it without further delay is being considered.

SOLOMON FABRICANT

#### SERVICE INDUSTRIES

War work interrupted progress of my studies of employment in the service industries, but they are now being resumed.

The service industries could be defined as those in which labor costs are relatively large, or (as etymology suggests) as those which deal directly with the ultimate consumer, or provide labor services to consumers. In practice none of these or other possible definitions is used: the service industries are those not placed under other rubrics by the Census and (interdependent) common practice. Whatever homogeneity is achieved in manufacturing and transportation, for example, is purchased at the price of extreme heterogeneity within the service category—the independent professions, religion, government, illegal manufactures, insurance, domestic service, retailers, and real estate. To this extreme heterogeneity one must add a customary dearth of both statistical information and authoritative economic analyses, and in many cases an utter inability to talk sensibly of physical output.

Accordingly, the methods used to describe output in manufacturing, mining, and agriculture could not be applied to the service industries. It was therefore decided that detailed studies of important service industries would prove more useful than an attempt merely to estimate the trends in employment (or more often, the labor force) in all service industries.

Three such industries have been selected for examination: (1) domestic service, the pure example of a service industry; (2) education, which adequately represents government (for teachers have been the most numerous peacetime employees of government) and embraces also private and religious schools; (3) retail trade, in terms of employment the largest of the service industries, where small-scale, competitive firms are typical.

It may be advisable to supplement this list with a service industry dominated by large-scale units, such as insurance or banking.

The analyses will necessarily vary greatly with the industries. The study of domestic service, a draft of which has been completed, must necessarily focus on the trend in employment and explanations of that trend. In retail trade it may prove feasible to examine also productivity and efficiency. In education, special attention will be devoted to the effects of public support and the development of professional status, and—so far as employment is concerned—the mantle of prophecy may be donned with fewer than usual misgivings.

As one of the papers commemorating the twenty-fifth anniversary, I am preparing an essay on the studies of employment and productivity so far made at the National Bureau.

GEORGE J. STIGLER

#### FINANCIAL RESEARCH PROGRAM

The year 1944, the seventh year of active operation of the Financial Research Program, was one of accomplishment in each of the four areas of activity to date—war financing, business financing, investment credit and consumer financing. In addition to completing or pushing forward scheduled work in these areas, the Program's Central Research Staff, with the help of special exploratory committees, developed plans for two new projects: agricultural finance and urban real estate finance.

##### WAR FINANCING

Studies in war financing, the major activity of the financial research staff in 1942-43, continued to occupy its attention in 1944. Under the first division of the project, War Finance and Banking, The Federal Reserve System in Wartime, by Anna Youngman (*Washington Post*, editorial staff), was published as *Occasional Paper 21*; Bank Liquidity and the War, by C. R. Whittlesey (University of Pennsylvania), as *Occasional Paper 22*. Revision of a study of war finance and the pattern of interest rates, by W. Braddock Hickman (U. S. Navy), has been delayed by the military service of the author; and a study of wartime changes in

the ownership of the federal debt, by Willis J. Winn (Financial Research Staff), is still in preparation.

Under the second division of the War Financing Project, the Effect of War on Business Financial Structure, *Corporate Cash Balances, 1914-43*, by F. A. Lutz (Princeton University), has been published. It was prepared in cooperation with the economics staff of the Institute for Advanced Study, of which Mr. Lutz is a member. Wilson F. Payne (Financial Research Staff) made considerable progress in developing the corporate financial materials for his study of the financing problems of business in World War II, particularly in the direction of completing new and larger samples of corporate financial statements for large, medium, and small corporations for the war and immediate prewar periods.

Under the third division of the project, *The Effect of War on Foreign Banking Systems, Nazi War Finance and Banking*, by Otto Nathan (now of the U. S. Treasury Department) was published as *Occasional Paper 20*. Benjamin H. Higgins (McGill University) has finished the manuscript of his study of British war finance, entitled tentatively 'Lombard Street in War'. It is scheduled for publication in summer.

The fourth division of the project, *Postwar Problems in the Reconstruction of the International Money Markets*, has yielded two reports. One, by J. H. Riddle (Bankers Trust Company), comparing British and American plans for postwar currency stabilization, was published in January 1944; the other, by Michael Heilperin (Hamilton College), of selected European cases of inflation after World War I, is nearing completion.

#### BUSINESS FINANCING

Of the studies projected under the first division of this series, dealing with the measurement of changes in the financial structure of business enterprise since 1900, the first has been published: *The Pattern of Corporate Financial Structure in 1937*, by W. A. Chudson (formerly Financial Research Staff, now UNRRA). Some progress was made in revising for publication the study of long-term changes in the financial structure of enterprise, 1900-40, by Sidney S. Alexander (formerly Financial Research Staff, now U. S. Army).

Under the second division of this series, which deals with

contemporary relations between business enterprise and financial institutions, *Financing Inventory on Field Warehouse Receipts* and *Financing Equipment for Commercial and Industrial Enterprise*, by Neil H. Jacoby (University of Chicago) and R. J. Saulnier (Barnard College, Columbia University), were published early in the year. These two studies, together with *Term Lending to Business* and *Accounts Receivable Financing*, published in 1942, complete the studies planned in this part of the series.

Since autumn 1943 Jacoby and Saulnier have been collaborating on a capstone study for the Business Financing Series. It will describe the market for business credit at the outbreak of this war; trace changes in both the demand and supply side of the market since 1900; analyze the forces causing these changes; assess the effects of World War II on the market structure; and outline the emerging problems of the business credit market in the light of these developments. The manuscript has reached an advanced stage, and it is expected that review and revision for publication can be finished by early summer.

#### INVESTMENT CREDIT

All staff memoranda relating to the Program's record of corporate bond offerings and experience, 1900-40, compiled by the Program during 1938-41, with the collaboration and support of public supervisory agencies and private financial services, have been mimeographed. These documents, together with three volumes of primary statistics on corporate bond offerings, 1900-38, prepared in connection with the record, are available, on request, to libraries of universities cooperating with the National Bureau.

In the late autumn, under authorization by the National Bureau's Committee on Research in Finance, the task of bringing the corporate bond records up to date was begun. Facilitated by the cooperation of the Securities and Exchange Commission, it should be completed by summer.

Analytical work on the corporate bond records has been confined to two studies of interest rates on corporate bonds, conducted in cooperation with the Institute for Advanced Study. One, *Basic Yields of Corporate Bonds*, by David Durand (U. S. Navy) was published as a *Technical Paper* in 1942; the other, *The Term Structure of Interest Rates, An Exploratory Study*,

by W. Braddock Hickman (U. S. Navy), remains in mimeographed form because the author is in military service.

Arrangements have been made to prepare a third study based on these records. Donald B. Woodward and Eleanor Bagley (both of the Research Department, Mutual Life Insurance Company) accepted an assignment to collaborate in a statistical test of the performance record of sinking fund vs. non-sinking fund bonds, 1900-44. In addition, with the cooperation of interested public and private agencies, some planning was done on the problem of testing the efficiency of legal lists as guides to institutional investment. A study of this problem may be next in the series to be prepared on the basis of the corporate bond records.

In June the National Association of Securities Dealers invited the Program to explore the organization and functioning of the nation's capital and securities markets. This invitation was accepted in the fall, and exploratory work has made considerable progress. A report to the Committee on Research in Finance is expected by late spring.

Another exploratory activity carried on during 1944 by the Central Research Staff of the Program in this general field relates to corporate capital expenditures and methods of financing them. The approach has been from the standpoint of the needs of business enterprise for outside financing. After reviewing the development of empirical work in the field, the Committee on Research in Finance concluded that an investigation of business needs for financing was an important complement to other approaches to investment credit problems so far sponsored by the Program. In the opinion of the Committee, the availability of the corporate financial records compiled in connection with the Business Financing Studies made such an investigation especially opportune. While considerable progress has been made with the exploratory work, it is not expected that the consultations and conferences essential to the formulation of a program of work can be carried out before late summer.

#### CONSUMER INSTALMENT FINANCING

Two studies remained on the schedule at the beginning of 1944. The first, *Comparative Operating Experience of Consumer Instalment Financing Agencies and Commercial Banks, 1929-41*, by Ernst A. Dauer (formerly Financial Research Staff and Federal

Deposit Insurance Corporation, now U. S. Navy) was completed and published. The second, the summary study in the series, has been indefinitely postponed.

RESEARCH PLANNING—AGRICULTURAL FINANCE AND  
URBAN REAL ESTATE FINANCE

In December 1943 the Committee on Research in Finance directed the Central Research Staff to explore the fields of agricultural and urban real estate finance. After extended preliminary discussions, two committees were appointed in the early fall to prepare reports.

*Exploratory Committee on Research in Agricultural Finance*

F. F. Hill, Chairman (Head, Department of Agricultural Economics, Cornell University)  
Earl L. Butz, Secretary (School of Agriculture, Purdue University)  
William G. Murray (Chairman, Department of Economics and Sociology, Iowa State College)  
William J. Carson (Executive Director, National Bureau of Economic Research)  
Ralph A. Young (Director, Financial Research Program, National Bureau of Economic Research)

*Exploratory Committee on Research in Urban Real Estate Finance*

Donald S. Thompson, Chairman (Central Research Staff, National Bureau of Economic Research)  
Miles L. Colean (Consultant in Residential Construction and Financing)  
Ernest M. Fisher (Director, Research in Mortgage and Real Estate Finance, American Bankers Association)  
Shirley K. Hart (Director, Division of Research and Statistics, National Housing Agency)  
Donald B. Woodward (Research Assistant to the President, Mutual Life Insurance Company of New York)  
William J. Carson (Executive Director, National Bureau of Economic Research)  
Ralph A. Young (Director, Financial Research Program, National Bureau of Economic Research)

In addition to meetings of members only, each Committee held two research planning conferences, one with 20 representative technical specialists and the other with lending officers.

The Exploratory Reports of the Committees, completed early in December, were reviewed and approved within the month by the Committee on Research in Finance and the Executive Committee of the National Bureau Directors. The Central Research

Staff of the Program and the officers of the National Bureau are now authorized to work out methods of implementing the recommendations of the Committees.

Both Exploratory Reports recommend that the Financial Research Program undertake a broad coordinated attack upon problems in the two areas, with the cooperation of private financial institutions, public agencies interested in the fields, and university scholars. The specific research activities proposed, on the basis of needs for further work in these fields, include:

*Agricultural Finance*

- I Characteristics of Agriculture in Relation to Its Financing
- II Costs, Risks, and Returns in Agricultural Finance
- III Agricultural Credit Institutions: Their Organization and Practices
- IV Studies of Selected Problems in Agricultural Finance, e.g., special purpose loans; special institutional problems; and problems of public regulation and legislation
- V Agricultural Finance in National Economy

*Urban Real Estate Finance*

- I The Urban Real Estate Market and Its Financing Needs
- II Facilities and Practices in Urban Real Estate Finance
- III Risk Experience in Financing Urban Real Estate
- IV Effects of Fluctuations and Change in Urban Real Estate on Its Financing
- V Influence of Government on Urban Real Estate
- VI Studies of Selected Problems in Urban Real Estate Finance, e.g., information on important cities; special techniques of financing (mortgage bonds and junior liens); the financing of special activities (slum clearance, public housing, cooperative housing, negro housing); and HOLC experience.

Plans are now being laid for the conduct of these two programs. It is expected that they will be in full operation by the end of the year.

CHANGES IN PROGRAM PERSONNEL

In December 1944 Donald Thompson became associated full time with the Central Research Staff of the Program. His special field of interest will be urban real estate. From 1936 until he joined the Program's staff, Mr. Thompson was Chief of the Division of Research and Statistics of the Federal Deposit Insurance Corporation. At present, the other members of the Central Research Staff are Ralph A. Young, R. J. Saulnier, and William J. Carson.

Six members have been added to the Committee on Research in Finance, responsible for the general guidance and supervision of Program activities:

Benjamin Haggott Beckhart (Professor of Banking, Columbia University, and Director of Research, Chase National Bank)

Ernest M. Fisher (Director, Research in Mortgage and Real Estate Finance, American Bankers Association )

Walter Lichtenstein (Vice President, First National Bank of Chicago)

William I. Myers (Dean, College of Agriculture, Cornell University)

J. H. Riddle (Economic Advisor, Bankers Trust Company)

George Bassett Roberts (Vice President, National City Bank, and Treasurer, National Bureau)

Messrs. Beckhart, Lichtenstein, Riddle, and Roberts previously served as consultants to the Committee.

RALPH A. YOUNG, *Director*  
*Financial Research Program*

#### CONFERENCE ON RESEARCH IN FISCAL POLICY

Three investigations went forward in 1944 under the direction of the Conference. Project A, in charge of Dan T. Smith and associates, a study of the distinction between income as determined for business purposes and for tax purposes, advanced slowly toward its long-delayed conclusion. In 1944, as in earlier years, wartime duties of Professor Smith and his colleagues impeded the work; and the Conference is not yet ready to present the finished report to the National Bureau.

Project E, in charge of Lawrence H. Seltzer and associates, progressed rapidly toward the final manuscript stage: some parts of the manuscript are already in nearly final form, and the rest is in prospect during 1945. This project, a study of the tax treatment of capital gains and losses, has awakened wide interest among tax specialists, and is likely to prove particularly useful in certain projected studies of the Conference.

Project F, a study of the postwar federal budget, had been completed in preliminary form at the end of 1943, after several months of work, largely by the Chairman of the Conference. Work was resumed in the summer of 1944, when M. Slade Kendrick was requested to revise the preliminary report in the light of criticisms submitted by those who had received the manu-

script, and in the light of unfolding events and further study of facts and opinions. A revision is nearing completion, and the Conference will determine early in 1945 whether to submit it to the National Bureau for publication.

The Executive Committee of the Conference is now studying projects to be undertaken after—perhaps even before—current work on Projects E and F is completed. These plans have not yet reached the stage of detailed outlining of any one of the preferred projects, such as will be necessary before the National Bureau is asked to authorize the new work.

W. LEONARD CRUM  
*Chairman*

#### FLOW OF MONEY PAYMENTS

At the suggestion of the Committee for Economic Development a study of the flow of money payments was planned in 1944. It is now authorized for 1945-46 with contributions from the Committee and with the cooperation and collaboration of public and private agencies. Morris A. Copeland has accepted appointment to the staff to undertake it and will begin work as soon as he can be released from his duties at the War Production Board.

The objective is to improve the understanding of the workings of our economic system by measuring the flow of payments and comparing its fluctuations with those of goods. In a money economy, where economic activities are organized chiefly in business enterprises, employment of resources, production of goods, their distribution to consumers, and hence public welfare depend upon the circuit flow of money payments to and from enterprises, individuals, and government agencies. Within the last decade, approximations to the flow of goods and services that make up the national product have been developed and compared with estimates of the counter-flow of national income. The Department of Commerce is currently estimating both flows. About the circuit flow of payments and its relation to national income and output, our knowledge is exceedingly vague. We do know, however, that the flow of payments does not adjust itself automatically to the flow of goods men are able to produce and

need to consumer. Indeed, several theorists have argued that cyclical fluctuations in business activity are due primarily to recurring changes in the relative size of these two flows. The findings this investigation promise should put us in a far better position to diagnose our recurrent chills and fevers, and to seek remedies.

#### INTERNATIONAL GOLD STANDARD

The investigation of the international gold standard 1816-1914 was resumed in 1943. Started in conjunction with the 1914-34 gold standard study of William Adams Brown, Jr., it was temporarily interrupted while Brown's study was completed. Carel Jan Smit is now back on the job and expects to complete his manuscript in 1945. His findings should throw a realistic and practical light on various phenomena connected with the growing stability of exchange rates over an ever expanding area during the century following the Napoleonic Wars when the London discount market came more and more to be the world's central money market. As such it performed the functions of a spontaneously developed world fund for equalizing exchanges between lending and borrowing areas under the exchange-risk-limiting guarantees of the international gold standard, which the author conceives as a tacit international convention, unconsciously evolved in the nineteenth century.

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# Publications

## BOOKS

### GENERAL SERIES

- \*1 (1921), \*2 (1922), *Income in the United States*  
Wesley C. Mitchell, W. I. King, F. R. Macaulay, and O. W. Knauth
- \*3 *Distribution of Income by States in 1919* (1922), O. W. Knauth
- \*4 *Business Cycles and Unemployment* (1923)  
National Bureau Staff and Sixteen Collaborators
- \*5 *Employment, Hours and Earnings, United States, 1920-22* (1923)  
W. I. King
- 6 *The Growth of American Trade Unions, 1880-1923* (1924)  
Leo Wolman 170 pp., \$2.50
- \*7 *Income in the Various States: Its Sources and Distribution, 1919, 1920, and 1921* (1925), Maurice Leven
- 8 *Business Annals* (1926)  
W. L. Thorp, with an introductory chapter, *Business Cycles as Revealed by Business Annals*, by Wesley C. Mitchell 380 pp., \$2.50
- 9 *Migration and Business Cycles* (1926), Harry Jerome 256 pp., \$2.50
- 10 *Business Cycles: The Problem and Its Setting* (1927)<sup>a</sup>  
Wesley C. Mitchell 489 pp., \$5.00
- \*11 *The Behavior of Prices* (1927), Frederick C. Mills
- 12 *Trends in Philanthropy* (1928), W. I. King 78 pp., \$1.00
- \*13 *Recent Economic Changes* (1929)
- \*14 (1929), \*18 (1931), *International Migrations*, ed. by W. F. Willcox
- \*15 *The National Income and Its Purchasing Power* (1930), W. I. King
- 16 *Corporation Contributions to Organized Community Welfare Services* (1930), Pierce Williams and F. E. Croxton 347 pp., \$2.00
- 17 *Planning and Control of Public Works* (1930)  
Leo Wolman 260 pp., \$2.50
- \*19 *The Smoothing of Time Series* (1931), Frederick R. Macaulay
- \*20 *The Purchase of Medical Care through Fixed Periodic Payment* (1932),  
Pierce Williams
- \*21 *Economic Tendencies in the United States* (1932), Frederick C. Mills
- 22 *Seasonal Variations in Industry and Trade* (1933)  
Simon Kuznets 455 pp., \$4.00
- \*23 *Production Trends in the United States Since 1870* (1934)  
A. F. Burns

<sup>a</sup>Listed also as the first volume under Studies in Business Cycles.

\*Out of print.

- \*24 *Strategic Factors in Business Cycles* (1934)  
J. Maurice Clark
- 25 *German Business Cycles, 1924-1933* (1934)  
C. T. Schmidt 288 pp., \$2.50
- 26 *Industrial Profits in the United States* (1934)  
R. C. Epstein 678 pp., \$5.00
- 27 *Mechanization in Industry* (1934)  
Harry Jerome 484 pp., \$3.50
- 28 *Corporate Profits as Shown by Audit Reports* (1935)  
W. A. Paton 151 pp., \$1.25
- 29 *Public Works in Prosperity and Depression* (1935)  
A. D. Gayer 460 pp., \$3.00
- 30 *Ebb and Flow in Trade Unionism* (1936)  
Leo Wolman 251 pp., \$2.50
- 31 *Prices in Recession and Recovery* (1936)  
Frederick C. Mills 561 pp., \$4.00
- 32 *National Income and Capital Formation, 1919-1935* (1937)  
Simon Kuznets 100 pp., 8¼ x 11¾, \$1.50
- 33 *Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States Since 1856* (1938), F. R. Macaulay 586 pp., \$5.00  
The Social Sciences and the Unknown Future, a reprint of the introductory chapter to Dr. Macaulay's volume: 35 cents; in orders of 10 or more, 25 cents.
- \*34 *Commodity Flow and Capital Formation, Volume 1* (1938)  
Simon Kuznets
- \*35 *Capital Consumption and Adjustment* (1938)  
Solomon Fabricant
- 36 *The Structure of Manufacturing Production, A Cross-Section View* (1939)  
C. A. Bliss 234 pp., \$2.50
- 37 *The International Gold Standard Reinterpreted, 1914-34* (1940)  
William Adams Brown, Jr. 2 vol., 1420 pp., \$12.00
- 38 *Residential Real Estate, Its Economic Position as Shown by Values, Rents, Family Incomes, Financing, and Construction, Together with Estimates for All Real Estate* (1941)  
D. L. Wickens 320 pp., 8¼ x 11¾, \$3.50
- 39 *The Output of Manufacturing Industries, 1899-1937* (1940)  
Solomon Fabricant 700 pp., \$4.50
- \*40 *National Income and Its Composition, 1919-1938* (1941)  
Simon Kuznets

\*Out of print.

- 41 *Employment in Manufacturing, 1899-1939: An Analysis of its Relation to the Volume of Production* (1942)  
Solomon Fabricant 360 pp., \$3.00
- 42 *American Agriculture, 1899-1939: A Study of Output, Employment and Productivity* (1942)  
Harold Barger and Hans H. Landsberg 435 pp., \$3.00
- 43 *The Mining Industries, 1899-1939: A Study of Output, Employment and Productivity* (1944)  
Harold Barger and Sam H. Schurr 452 pp., \$3.00
- 44 *National Product in Wartime* (1945)  
Simon Kuznets 176 pp., \$2.00
- 45 *Income from Independent Professional Practice* (1945)  
Milton Friedman and Simon Kuznets 634 pp., \$4.50

#### STUDIES IN BUSINESS CYCLES

- 1 *The Problem and Its Setting* (1927)  
Wesley C. Mitchell 489 pp., \$5.00
- 2 *Measuring Business Cycles*  
A. F. Burns and Wesley C. Mitchell (in press)

#### CONFERENCE ON RESEARCH IN INCOME AND WEALTH

##### *Studies in Income and Wealth*

- Vol. I (1937), 368 pp., \$2.50; Vol. II\* (1938); Vol. III\* (1939)  
Vol. VI (1944), 288 pp., \$3.00
- Vol. IV: *Outlay and Income in the United States, 1921-1938* (1942)  
Harold Barger 391 pp., \$2.50
- \*Vol. V: *Income Size Distributions in the United States* (1943)
- Vol. VII: *Changes in Income Distribution during the Great Depression*  
Horst Mendershausen (in press)

#### CONFERENCE ON PRICE RESEARCH

- 1 *Report of the Committee on Prices in the Bituminous Coal Industry*  
(1938) 144 pp., \$1.25
- \*2 *Textile Markets—Their Structure in Relation to Price Research* (1939)
- 3 *Price Research in the Steel and Petroleum Industries* (1939)  
224 pp., \$2.00
- \*4 *Cost Behavior and Price Policy* (1943)

#### CONFERENCE ON RESEARCH IN FISCAL POLICY

- \**Fiscal Planning for Total War* (1942)  
W. L. Crum, J. F. Fennelly, L. H. Seltzer

\*Out of print.

## FINANCIAL RESEARCH PROGRAM

### I A PROGRAM OF FINANCIAL RESEARCH

- 1 *Report of the Exploratory Committee on Financial Research* (1937)  
91 pp., \$1.00
- 2 *Inventory of Current Research on Financial Problems* (1937)  
253 pp., \$1.50

### II STUDIES IN CONSUMER INSTALMENT FINANCING

- 1 *Personal Finance Companies and Their Credit Practices* (1940)  
Ralph A. Young and Associates 170 pp., \$2.00
- 2 *Sales Finance Companies and Their Credit Practices* (1940)  
Wilbur C. Plummer and Ralph A. Young 298 pp., \$3.00
- 3 *Commercial Banks and Consumer Instalment Credit* (1940)  
John M. Chapman and Associates 318 pp., \$3.00
- 4 *Industrial Banking Companies and Their Credit Practices* (1940)  
R. J. Saulnier 192 pp., \$2.00
- 5 *Government Agencies of Consumer Instalment Credit* (1940)  
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Ernst A. Dauer 250 pp., \$3.00

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- Term Lending to Business* (1942)  
Neil H. Jacoby and R. J. Saulnier 163 pp., \$2.00
- Financing Small Corporations in Five Manufacturing Industries 1926-36*  
(1942)  
Charles L. Merwin 172 pp., \$1.50
- Accounts Receivable Financing* (1943)  
R. J. Saulnier and Neil H. Jacoby 157 pp., \$2.00
- The Financing of Large Corporations, 1920-39* (1943)  
Albert R. Koch 141 pp., \$1.50

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<i>Financing Equipment for Commercial and Industrial Enterprise</i> (1944)	
Neil H. Jacoby and R. J. Saulnier	95 pp., \$1.50
<i>Financing Inventory on Field Warehouse Receipts</i> (1944)	
Neil H. Jacoby and R. J. Saulnier	89 pp., \$1.50
<i>Corporate Cash Balances, 1914-43</i> (1945)	
Friedrich A. Lutz	132 pp., \$2.00
<i>The Pattern of Corporate Financial Structure: A Cross-Section View of Manufacturing, Mining, Trade, and Construction, 1937</i> (1945)	
Walter A. Chudson	150 pp., \$2.00

### OCCASIONAL PAPERS

1 Manufacturing Output, 1929-1937 (Dec. 1940), Solomon Fabricant	.25
*2 National Income, 1919-1938 (April 1941), Simon Kuznets	
3 Finished Commodities since 1879, Output and Its Composition (Aug. 1941), William H. Shaw	.25
4 The Relation between Factory Employment and Output since 1899 (Dec. 1941), Solomon Fabricant	.25
5 Railway Freight Traffic in Prosperity and Depression (Feb. 1942), Thor Hultgren	.25
6 Uses of National Income in Peace and War (March 1942) Simon Kuznets	.25
*7 Productivity of Labor in Peace and War (Sept. 1942) Solomon Fabricant	
*8 The Banking System and War Finance (Feb. 1943) Charles R. Whittlesey	
*9 Wartime 'Prosperity' and the Future (March 1943) Wesley C. Mitchell	
10 The Effect of War on Business Financing: Manufacturing and Trade, World War I (Nov. 1943), R. A. Young and C. H. Schmidt	.50
11 The Effect of War on Currency and Deposits (Sept. 1943) Charles R. Whittlesey	.35
12 Prices in a War Economy: Some Aspects of the Present Price Structure of the United States (Oct. 1943), Frederick C. Mills	.50
13 Railroad Travel and the State of Business (Dec. 1943) Thor Hultgren	.35
14 The Labor Force in Wartime America (March 1944) Clarence D. Long	.50

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15	Railway Traffic Expansion and Use of Resources in World War II (Feb. 1944), Thor Hultgren	.35
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17	National Product, War and Prewar (Feb. 1944), Simon Kuznets	.50
18	Production of Industrial Materials in World Wars I and II (March 1944), Geoffrey H. Moore	.50
19	Canada's Financial System in War (April 1944), B. H. Higgins	.50
20	Nazi War Finance and Banking (April 1944), Otto Nathan	.50
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22	Bank Liquidity and the War (May 1945) Charles R. Whittlesey	.50

#### TECHNICAL PAPERS

1	A Significance Test for Time Series and Other Ordered Observations (Sept. 1941), W. Allen Wallis and Geoffrey H. Moore	.50
2	The Relation of Cost to Output for a Leather Belt Shop, by Joel Dean, with a Memorandum on Certain Problems in the Empirical Study of Costs by C. Reinold Noyes (Dec. 1941)	.50
3	Basic Yields of Corporate Bonds, 1900-1942 (June 1942) David Durand	.50

#### BULLETINS (*Occasional Papers* since 1940)

- \*Introductory (Aug. 1, 1922)
  - \*2 Control of Business Cycle Studied in Light of Newest Data Uncovered by Bureau (Nov. 1, 1922)
  - \*3 Income from American Shipping Analyzed (Dec. 15, 1922)
  - \*4 Population of United States Passes 110,000,000 Mark (March 1, 1923)
  - \*5 Depression of 1921 Cost Six Billion Dollars (May 1, 1923)
  - \*6 Centers of Stress in American Industry Revealed (Aug. 1, 1923)
  - \*7 Study of Migration and Labor Supply is Begun (Nov. 15, 1923)
  - \*8 Extensive Research Program for 1924 Outlined (March 10, 1924)
  - \*9 Population of United States Gains 1,943,000 in Year (June 16, 1924)
  - \*10 Growth of American Trade Unions Investigated (Nov. 1, 1924)
  - \*11 One-fifth of United States Wage Earners in Trade Unions (Feb. 2, 1925)
- \*Out of print.

- \*12 Population of United States Rises to 114,311,000 (April 20, 1925)
- \*13 Purchasing Power in Each State is being Measured (June 1, 1925)
- \*14 Steady Gain Shown in American Buying Power (Aug. 17, 1925)
- \*15 Payrolls Produce 58 Per Cent of National Income (Oct. 15, 1925)
- \*16 Incomes of Farmers and Non-Farmers Analyzed (Dec. 14, 1925)
- \*17 United States Population Almost 116,000,000 (March 17, 1926)
- \*18 Explorations in Economics (May 10, 1926)
- \*19 United States and Canada Lead in Prosperity (June 21, 1926)
- \*20 United States has Shortest Business Cycles (Aug. 1, 1926)
- \*21 Annals Reveal Growth of a New World Economy (Nov. 1, 1926)
- \*22 Statistical Light Turned upon Labor Supply (Dec. 15, 1926)
- \*23 1926 American Income, Almost 90 Billions, Breaks Records  
(Feb. 21, 1927)
- \*24 Weighted Index Number of Railroad Stock Prices in the United States,  
1857-1927 (March 30, 1927)
- \*25 World-Wide Business Conditions Pictured (May 20, 1927)
- \*26 Variability of Bank Discount Rates Measured (July 18, 1927)
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- \*29 Changes in the 'Cost of Living', 1909-1928 (Sept. 10, 1928)
- \*30 Wage Earners Participate in National Prosperity (Feb. 10, 1929)
- \*31 Testing Business Cycles (March 1, 1929)
- \*32 Recent Changes in the Cost of Living (June 10, 1929)
- \*33 White Collar Immigrants Increase (Sept. 16, 1929)
- \*34 Shifts in Income Concentration (Nov. 8, 1929)
- \*35 National Income Totals \$89,419,000,000 (Dec. 16, 1929)
- \*36 Population of United States nears 120,000,000 Mark (Jan. 15, 1930)
- \*37 Seasonal Movements in Production and Trade (April 22, 1930)
- \*38 Corporation Contributions to Organized Community Welfare Services  
(June 3, 1930)
- \*39 America Spends \$3,500,000,000 Yearly on Public Works (July 3, 1930)
- \*40 Some Aspects of the Price Recession of 1929-1931 (Nov. 22, 1930)  
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- \*41 Bond Yields and Business Recovery (Jan. 5, 1931)
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- \*43 The Depression as Depicted by Business Annals (Sept. 19, 1932)  
Willard L. Thorp
- \*44 Industrial Profits in Prosperity and Depression, 1919-1932 (Jan. 27,  
1933), Ralph C. Epstein

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*45	Changes in Physical Production, Industrial Productivity and Manufacturing Costs, 1927-1932 (Feb. 20, 1933), Frederick C. Mills	
*46	Wages during the Depression (May 1, 1933), Leo Wolman	
*47	Employment during the Depression (June 30, 1933) Meredith B. Givens	
*48	Aspects of Recent Price Movements (Oct. 31, 1933) Frederick C. Mills	
49	National Income, 1929-1932 (Jan. 26, 1934; revised June 7) Simon Kuznets	\$ .25
50	Recent Corporate Profits in the United States (April 18, 1934) Solomon Fabricant	.25
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59	Income Originating in Nine Basic Industries, 1919-1934 (May 4, 1936), Simon Kuznets	.50
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63	The Recovery in Wages and Employment (Dec. 21, 1936) Leo Wolman	.25
*64	A Program of Financial Research (May 1937)	
65	Non-Farm Residential Construction, 1920-1936 (Sept. 15, 1937) David L. Wickens and Ray R. Foster	.25
*66	National Income, 1919-1935 (Sept. 27, 1937), Simon Kuznets	
67	Technical Progress and Agricultural Depression (Nov. 29, 1937) Eugen Altschul and Frederick Strauss	.50
*Out of print.		

68	Union Membership in Great Britain and the United States (Dec. 27, 1937), Leo Wolman	.25
*69	Statistical Indicators of Cyclical Revivals (May 28, 1938) Wesley C. Mitchell and Arthur F. Burns	
70	Employment Opportunities in Manufacturing Industries of the United States (Sept. 25, 1938), Frederick C. Mills	.25
71	Hours of Work in American Industry (Nov. 27, 1938) Leo Wolman	.25
72-73	Incomes from Independent Professional Practice, 1929-1936 (Feb. 5, 1939), Simon Kuznets and Milton Friedman	.50
74	Commodity Flow and Capital Formation in the Recent Recovery and Decline, 1932-1938 (June 25, 1939), Simon Kuznets	.25
75	Differentials in Housing Costs (Sept. 17, 1939) David L. Wickens	.25
76-77	The Statistical Pattern of Instalment Debt (Oct. 15, 1939) R. A. Young and Blanche Bernstein	.50
78	The Composition of Gross Farm Income Since the Civil War (April 28, 1940), Frederick Strauss	.25
79	The Volume of Consumer Instalment Credit, 1929-1938 (Sept. 1, 1940), Duncan McC. Holthausen, Malcolm L. Merriam, and Rolf Nugent	.25
80	The Anatomy of Prices, 1890-1940 (Sept. 9, 1940) Frederick C. Mills	.25

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