

20,087

A PROGRAM OF
FINANCIAL RESEARCH

VOLUME I

\$1.00

*Report of the
Exploratory Committee on
Financial Research*

field W. Riefler Chair, Institute for Advanced Study, Princeton, New Jersey)

Walter Lichtenstein
President, First National Bank, Chicago, Illinois; Chair-
man, Committee on Nationwide
Banking Research, Association
of Reserve City Bankers).

David Friday
Chairman, Committee on Bank-
ing and Credit, Social Science
Research Council)

J. H. Riddle
Economist, Bankers Trust
Company, New York)

VOLUME II

*Inventory of
Current Research
on Financial Problems*

p.

\$1.50

87
programme of
financial research

SERVANTS OF INDIA SOCIETY'S LIBRARY,
POONA 4

Cl. No

Date of release

Ac. No.

This book should be returned on or
date last mentioned below.

An overdue charge of 5 paise
for each day the book is kept beyond

20 1901

29 JUN 1901

Dhananjayrao Gadgil Library



GIPE-PUNE-020087

STUDIES IN FINANCE
NUMBER ONE

Officers

JOSEPH H. WILLITS, Chairman
GEORGE SOULE, President
DAVID FRIDAY, Vice-President
SHEPARD MORGAN, Treasurer
JOSEPH H. WILLITS, Executive Director
CHARLES A. BLISS, Executive Secretary
MARTHA ANDERSON, Editor

Directors at Large

CHESTER I. BARNARD, *President,*
New Jersey Bell Telephone Company
HENRY S. DENNISON, *President, Dennison Manufacturing Company*
GEORGE M. HARRISON, *President,*
Brotherhood of Railway and Steamship Clerks
OSWALD W. KNAUTH, *President, Associated Dry Goods Corporation*
HARRY W. LAIDLER, *Executive Director,*
The League for Industrial Democracy
L. C. MARSHALL, *Johns Hopkins University*
GEORGE O. MAY, *Price, Waterhouse and Company*
SHEPARD MORGAN, *Vice-President, Chase National Bank*
BEARDSLEY RUMML, *Treasurer, R. H. Macy and Company*
GEORGE SOULE, *Director, The Labor Bureau, Inc.*
N. I. STONE, *Industrial and Financial Consultant*

Directors by University Appointment

WILLIAM L. CRUM, *Harvard*
WALTON H. HAMILTON, *Yale*
HARRY JEROME, *Wisconsin*
HARRY ALVIN MILLIS, *Chicago*
WESLEY C. MITCHELL, *Columbia*
JOSEPH H. WILLITS, *Pennsylvania*

Directors Appointed by Other Organizations

FREDERICK M. FEIKER, *American Engineering Council*
DAVID FRIDAY, *American Economic Association*
LEE GALLOWAY, *American Management Association*
MALCOLM MUIR, *National Publishers Association*
WINFIELD W. RIEFLER, *American Statistical Association*
GEORGE E. ROBERTS, *American Bankers Association*
MATTHEW WOLL, *American Federation of Labor*

Research Staff

WESLEY C. MITCHELL, *Director*
ARTHUR F. BURNS
SOLOMON FABRICANT
SIMON KUZNETS
EUGEN ALTSCHUL, DAVID L. WICKENS, *Associates*
FREDERICK R. MACAULAY
FREDERICK C. MILLS
LEO WOLMAN

RELATION OF THE DIRECTORS
TO THE WORK OF THE NATIONAL BUREAU
OF ECONOMIC RESEARCH

1. The object of the National Bureau of Economic Research is to ascertain and to present to the public important economic facts and their interpretation in a scientific and impartial manner. The Board of Directors is charged with the responsibility of ensuring that the work of the Bureau is carried on in strict conformity with this object.

2. To this end the Board of Directors shall appoint one or more Directors of Research.

3. The Director or Directors of Research shall submit to the members of the Board, or to its Executive Committee, for their formal adoption, all specific proposals concerning researches to be instituted.

4. No study shall be published until the Director or Directors of Research shall have submitted to the Board a summary report drawing attention to the character of the data and their utilization in the study, the nature and treatment of the problems involved, the main conclusions and such other information as in their opinion will serve to determine the suitability of the study for publication in accordance with the principles of the Bureau.

5. A copy of any manuscript proposed for publication shall also be submitted to each member of the Board. If publication is approved each member is entitled to have published also a memorandum of any dissent or reservation he may express, together with a brief statement of his reasons. The publication of a volume does not, however, imply that each member of the Board of Directors has read the manuscript and passed upon its validity in every detail.

6. The results of an inquiry shall not be published except with the approval of at least a majority of the entire Board and a two-thirds majority of all those members of the Board who shall have voted on the proposal within the time fixed for the receipt of votes on the publication proposed. The limit shall be forty-five days from the date of the submission of the synopsis and manuscript of the proposed publication unless the Board extends the limit; upon the request of any member the limit may be extended for not more than thirty days.

7. A copy of this resolution shall, unless otherwise determined by the Board, be printed in each copy of every Bureau publication.

(Resolution of October 25, 1926, revised February 6, 1933)

A PROGRAM OF
Financial Research

INVENTORY OF CURRENT RESEARCH ON
FINANCIAL PROBLEMS

VOLUME TWO

NATIONAL BUREAU OF ECONOMIC RESEARCH
in cooperation with
ASSOCIATION OF RESERVE CITY BANKERS

COPYRIGHT, 1937, BY NATIONAL BUREAU OF
ECONOMIC RESEARCH, INC.
1819 BROADWAY, NEW YORK. ALL RIGHTS RESERVED

X 6.73, g. N3t

G 7.2

20087

DESIGNER: ERNST REICHL
MANUFACTURED IN THE U. S. A. BY H. WOLFF, NEW YORK

CONTENTS

PREFACE	3
Compilation of Inventory	4
Organization of Inventory	5
Specific Characteristics of Main Research Areas	7
I Organization and structure of finance	7
II Quantity and behavior of credit	8
III Control and supervision of credit	9
IV Standards of credit and security analysis	10
V Functions of and needs for credit	11
Coordination of Current Research Activity	11
Limitations of Inventory	13
Cross References	15
Acknowledgments	15
PART I <i>Organization and Structure of Finance</i>	17
A International Monetary Organization	21
B Domestic Monetary Organization	32
C Financial Institutions—Development and Operation	34
(a) Development of Banking Institutions	34
(b) Operating Aspects of Banking Institutions	46
(c) Trust Departments and Companies	59
(d) Consumer and other Finance Agencies	66
(e) Investment Credit Agencies	67
(f) Urban Mortgage Credit Agencies	71
(g) Agricultural Credit Agencies	74
(h) Federal Credit Agencies	76

D	Interrelationships Among Financial Institutions	79
E	Soundness of Financial Institutions	87
PART II <i>Quantity and Behavior of Credit</i>		99
A	Currency and Bank Deposits	103
B	Loan and Investment Assets	116
(a)	Commercial and Mercantile Assets	116
(b)	Consumer and Personal Finance Assets	117
(c)	Investment Assets	118
(d)	Urban Mortgage Assets	125
(e)	Agricultural Mortgage and other Assets	128
(f)	Public Securities	130
C	Savings, Investment and Capital Formation	132
PART III <i>Control and Supervision of Credit</i>		137
A	Statutory Framework of Control	141
B	Administrative Control and Regulation of Credit— Quantitative	146
C	Administrative Control and Supervision of Credit— Qualitative	151
D	General Effectiveness of Public Control and Supervision	157
PART IV <i>Standards of Credit and Security Analysis</i>		167
A	Commercial and Mercantile Credit	171
B	Consumer and Personal Finance Credit	175
C	Investment Securities	177
D	Urban Mortgage Credit	185
E	Agricultural Credit	194
F	Public Obligations	202
PART V <i>Functions of and Needs for Credit</i>		207
A	Concepts of Money, Currency and Credit	211
B	Credit and Economic Organization	219
C	Credit and Economic Stability	227
LIST OF TITLES		235
INDEX OF NAMES		248

PART THREE

*Inventory of Current Research
on Financial Problems*

PREPARED WITH THE ASSISTANCE OF THE
CENTRAL STATISTICAL BOARD ON PROJECTS
CONDUCTED BY FEDERAL AGENCIES

PREFACE

THE INVENTORY is *not* a bibliography of published material. It is as comprehensive an account as possible of research that is now going on—work which is, in general, of a non-recurring character and which has not yet reached the stage of publication. Every effort has been made to organize it broadly according to the nature of the problems involved in the various research undertakings. Functional arrangement has not been sacrificed to precise alphabetical system. Rather, research has been grouped under five main classifications, which indicate in a general way the field of inquiry towards which the projects comprised under these respective headings are directed, as follows:

- I Organization and structure of finance
- II Quantity and behavior of credit
- III Control and regulation of credit
- IV Standards of credit and security analysis
- V Functions of and needs for credit

The purpose of such an inventory is to disclose to those actively interested in financial research the range and nature of the investigations currently being conducted and to bring investigators more closely into contact with one another's work. It is assumed that information on completed studies is already accessible in public or private libraries.¹ The same is true of the recurrent com-

¹ Several completed studies, however, published while the inventory was still in process, have been arbitrarily included.

pilations and analyses of important financial series by public agencies or private institutions as a part of their regular operations, which are therefore omitted.²

COMPILATION OF INVENTORY

The method of compilation of the inventory grew out of its purpose. It could not be a purely mechanical process, a mere reporting and listing of research activity. The procedures followed were designed to ascertain the nature of the questions to which an answer is being sought through research and the methods that are being used in answering them. They were also intended to disclose the type of additional questions being raised as a result of or in conjunction with current research; what aspects of special fields of interest active investigators feel are most inadequately provided with data, most neglected at present, and what aspects offer the most fertile opportunities for additional research. It has not been possible to obtain a satisfactory response to so ambitious a program in all cases, particularly where contacts were effected entirely by correspondence. Generally speaking, however, cooperation has been readily obtained and active investigators have been generous in disclosing their interests, problems and questions.

Two procedures were followed in eliciting this information and cooperation. First, letters of inquiry were addressed to all authorities and research bureaus, whether independent or attached to universities, that might reasonably be supposed to be conducting research within

² Exceptions have been made in particular for a number of continuing research projects of the Division of Research and Statistics, Board of Governors of the Federal Reserve System, which necessarily have a distinct pertinence to the inventory.

the boundaries of finance. Responses elicited to the original inquiry provided the basis for follow-up correspondence to obtain supplementary information. Many leads were supplied as to other authorities and research bureaus engaged in financial research, and inquiries were directed to them in turn. Second, direct contacts were made with the directors and staffs of all Federal research agencies by the Secretary of the Committee and representatives of the Central Statistical Board. In addition, the Secretary of the Committee personally saw or wrote to as many private institutions and investigators as possible.

ORGANIZATION OF INVENTORY

The classification of the research projects described is in keeping with the purposes of the inventory. Since the aim is to show the interrelations of current financial research and to bring independent research projects attacking the same general problem into close association, the framework of the inventory indicates the common purposes of the various subjects. Within this framework, as a preface to each main area of research, schematic outlines of the five inventory areas are presented to indicate more specifically the meaning and content that the main headings dividing each main area are intended to convey. Under each division arrangement of projects is alphabetical by sponsorship, first by public agency, then by research bureau and institute, and so on. The outlines may be used as reference sources to facilitate the location of the specific subject matter that may be covered in the current research projects reported in the inventory. Also questions of the classification of individual projects in the inventory may be resolved by reference

to them. In their use, the limitations of schematic outlines must be kept in mind. They are designed to be suggestive rather than definitive in their coverage, in other words, to embrace the essentials without the encumbrance of excessive detail.

As a further aid to the use of the inventory a list of the titles of all projects reported in it is appended. As in the inventory itself, these are arranged alphabetically by: [1] public agency; [2] research bureau and institute; [3] private organization; [4] individual investigator. Such a list gives a quick perspective of the range and scope of current financial research, so far as this may be disclosed merely by titles. It is particularly helpful in gaining a summary view of the current activities of public agencies and other institutions engaged in financial research that report several projects classified in different parts of the inventory.

To devise a framework of classification of utmost convenience to users of an inventory of this type presents many difficulties. Differences of opinion may well arise over any scheme suggested, and a degree of arbitrariness must characterize the plan finally accepted. Two major problems become apparent in such an organization. In the first place, effective classification of research projects according to the common problems with which they deal depends on the completeness of the information and also on the accuracy with which the material has been interpreted. This classification is subject to a certain amount of error for both reasons. In the second place, a few projects of large scope and broad objectives are virtually impossible to classify under one area and a single subdivision thereof. In such cases, it has been necessary to describe the project according to the main parts of which it is composed and to classify partial

abstracts in appropriate places. Inasmuch as the projects demanding multiple classification are relatively few and since the scheme of organization lends itself to convenient cross referencing, it has been deemed consistent with the objectives of the inventory to make cross classification of large projects.

The limitation thus imposed on multiple classification of individual research projects is not above criticism. There are necessarily a number of borderline cases where more than one classification of a project might be admissible. This is inevitably the case, for financial institutions, mechanisms and processes together constitute a unified system, the several parts and phases of which are intimately interdependent. Significant research activity concerned with any part or phase of the financial system must inevitably bear directly or indirectly on other phases. Competent investigators are necessarily led on by an awareness of this interdependence, and induced to extend their inquiries, or in any case to appraise within the limits of their own knowledge the wider implications of their individual findings for the financial system as a whole.

SPECIFIC CHARACTERISTICS OF MAIN RESEARCH AREAS

The types of research project placed under each of the five research areas into which the inventory is divided and the current distribution of work in each field are described below.

I Organization and structure of finance

The first area of research has been set apart for the classification of the following types of research project:

[1] those devoted principally to the objective description of the development or present constitution of international and domestic monetary organization and agencies; [2] those describing in considerable detail some phase of the development, organization, and operating characteristics and practices of specialized agencies and institutions currently rendering various financial services directly to the community; [3] those concerned primarily with the interrelationships among financial agencies and institutions, competitive and functional; [4] those dealing with the soundness of contemporary financial agencies or institutions in relation to the economic setting in which they operate and to the functions and ends they may endeavor to serve. So far as research in this area is concerned purely with description of financial organization, institutions, and institutional interrelationships, quantitative data and methods are of supplementary rather than primary usefulness. Current research activity, accordingly, is widely distributed among sponsoring sources, and research projects of private organizations and individual investigators are especially prominent. Projects devoted to the soundness of credit institutions, on the other hand, do rely extensively on quantitative materials and hence are concentrated mainly with public agencies and independently supported research bureaus which have facilities for undertaking quantitative research designed to serve the public interest.

II Quantity and behavior of credit

The second area provides a place for associating together all reported research activity seeking to: [1] measure the quantitative importance of different credit phenomena; [2] trace changes in credit phenomena through time by means of quantitative measures; [3] de-

termine relationships among financial phenomena and other economic elements as reflected in parallelisms of movement of quantitative measures. Entailing a quantitative approach and the intensive application of statistical techniques, research in this area is both labor and time consuming, and hence extremely expensive. It is chiefly confined, therefore, to agencies that can incur burdensome costs. Consequently, projects in this area are mainly centered with public bodies which must have quantitative data available in conjunction with the formulation and execution of public policies, and with research bureaus and institutes, animated by the public interest aspects of financial problems and adequately financed from foundation and other sources. In addition, some research is carried on by larger private financial agencies with a view to serving the special needs of contributors or subscribers. A few projects are carried on by academic authorities financed by special foundation subsidies.

III *Control and supervision of credit*

Research activity concerned primarily with different aspects of the system of credit control and the supervision of credit agencies which social organization has *so far* provided is grouped together in the third area of the inventory. It includes, therefore, only research projects expressly investigating existing systems of control and supervision with the purpose of, for example: [1] supplying a more accurate description of the prevailing statutory framework of credit regulation, evolved more or less piecemeal to meet acute financial problems as they arose; [2] determining the effectiveness of the several parts of the present system of regulation in attaining the functional ends for which they were devised; [3] evaluating the deficiencies and limitations of extant measures and

instrumentalities of regulation in terms of the regulative functions that need to be performed; [4] examining critically the general effectiveness of governmental control and regulation of credit. Because studies in this field are particularly the concern of supervisory agencies themselves, as faced with complex problems of administration, policy making and legislation, current investigations dealing with the control aspects of credit are concentrated to a substantial extent in public bodies. Individual investigators here and there are engaged in descriptive projects, and a few projects that fall within the area are being done by research bureaus and institutes or private organizations.

IV Standards of credit and security analysis

The fourth area has been reserved to classify all reported research that undertakes to deal with criteria or standards for appraising the soundness or quality of credit and securities in the performance of essential financial functions. Current research projects correlated in this part of the inventory include those undertaking to: [1] examine critically prevailing procedures and standards of credit and security analysis; [2] derive more objective methods and standards from the study of the experience records of various financial institutions and from a more careful sifting and synthesis of information contained in financial reports and other sources. Broadly speaking, problems of this character can be dealt with effectively only in terms of the pooled experience of many financial institutions or of mass data covering a wide range of individual cases. The availability of suitable data and their subjection to refined statistical and analytical treatment, accordingly, are prerequisite to the establishment of practical credit and security standards. Virtually all

these investigations, moreover, necessitate the collection of primary data to be used as raw materials. For this reason, most of the numerous qualitative credit studies are sponsored by governmental agencies. However, organized bureaus and institutes of economic research and private organizations are also engaged in several projects dealing with selected phases in this area of research.

V Functions of and needs for credit

The fifth area is intended to bring together all research projects reported in the inventory canvass that are devoted to problems of: [1] defining fundamental financial concepts; [2] describing the mechanism and processes by which credit functions in modern society; [3] reviewing theoretically the stabilizing and unstabilizing effects of credit; [4] evaluating the alternative mechanisms of control and supervision of credit. It is assigned the final position in the organization because the ultimate focus of all financial research must be the better adaptation of the credit mechanism and financial institutions to community needs; and the control of credit and the supervision of credit agencies with respect to social needs. Primarily an area of analytical investigation, inquiry into the problem of functions of and needs for credit challenges particularly the banking and credit theorist. As a consequence, research projects reported in conjunction with this inventory and classifiable under this area are principally those of independent investigators.

COORDINATION OF CURRENT RESEARCH ACTIVITY

It is abundantly evident from the findings of this inventory that contemporary financial research is distributed

over a wide front. The range and variety of problems under attack is impressive. Surprisingly enough, there appears to be little duplication of research projects. Explainable in part by the broad scope of the field of financial research, this absence of duplication is also attributable to the circumstances conditioning research, e.g., facilities, methods, resources, and to the diverse interests and motives that underlie individual investigations. It is perhaps also ascribable to the fact that *most* of the costly financial research is carried on under the auspices of public bodies. Highly developed channels of research communication among the many Federal agencies and especially the efforts of the Central Statistical Board to effect a better coordination of the research programs of various agencies have tended to reduce duplicative research activity in governmental circles to a minimum.

Taking the field of financial research as a whole, however, it is fair to conclude that current investigation is distinctly handicapped by the absence of any centralized facilities of coordination and planning. The widespread interest in the scope of contemporary financial research aroused by the assembling of material for the inventory and the willingness of agencies and investigators to go to considerable inconvenience and trouble to cooperate afford ample substantiation of this conclusion. Numerous letters received in response to requests for information on research in process requested that the Committee reciprocate by disclosing its findings in particular areas.

Public and independent research agencies almost invariably precede their investigations by extensive exploratory work with a view to ascertaining what other related studies are in preparation. While private agencies usually follow the same procedure, cases of inadequate

information on similar and related projects were brought to light. Individual academic investigators, being widely scattered geographically and confined by limited resources and isolation to published materials for their sources of information on current collateral inquiries, are manifestly handicapped in their knowledge of current financial research. Many of the requests for information that this inventory has prompted have come from independent authorities.

LIMITATIONS OF INVENTORY

Any inventory of research activity in process is fated to be incomplete. The incompleteness of this inventory is attributable to several specific causes. Some official agencies have not been willing to disclose to the Committee the nature and objectives of certain admitted research activities because of a feeling that their research, planned as an aid to policy making and operations was of internal interest only, and in any case they did not expect to publish the results. Official agencies in one or two instances have been reluctant to supply information also on the grounds that disclosure at an incomplete stage of investigation might be premature and result in undesired publicity. One independently financed research bureau took the position that its projects in process were purely exploratory and could not be described even to this Committee. Some private agencies, because of proprietary considerations, have not been responsive to requests for information. Where letters have been the sole means of contact with research agencies and individuals in universities, answers have not been received to all inquiries. Some investigators in universities also were disinclined to

describe their research activity because they did not feel it to be in a sufficiently advanced stage of development.

In compiling the inventory we have attempted to cover only research of a mature character. Studies and articles in preparation, undertaken primarily to meet particular educational needs, have not been included. Nor has it been attempted to cover the financial research activities of students engaged in fulfilling requirements for graduate degrees. Exception has been made, however, for a few relevant doctoral theses in an advanced stage, where information indicative of the data used and methods of analysis has been furnished. In addition, exception has also been made for a number of thesis studies in preparation by active bank officers for submission to the Graduate School of Banking, American Institute of Banking, Section American Bankers Association.¹ These exceptions, though not completely representative, do illustrate the types of financial research currently in progress in graduate schools.

Information was requested as an aid to the work of this Committee and the National Bureau of Economic Research. Some information generously supplied by official agencies was accompanied by the request that *confidential use only* be made of it and that no direct reference be made in any publication without specific

¹ The Graduate School of Banking was founded by the American Bankers Association in 1935, as an extension of the work of the American Institute of Banking. Its purpose is to offer qualified bank officers educational opportunities for advanced work in the fields of their professional interest. Information concerning graduate research activity under its auspices has been provided through the courtesy of F. N. Shepherd, Executive Manager of the American Bankers Association; Harold Stonier, Director of the Graduate School of Banking; Gilbert T. Stephenson, Director of the Trust Research Department, Graduate School of Banking.

permission. For this reason, all projects described confidentially are omitted from the inventory.

CROSS REFERENCES

Cross references are made throughout the inventory for all related projects, unless they happen to be immediately associated in the alphabetical arrangement. This is essential for a number of reasons. For some large projects, it has been necessary, as previously noted, to prepare partial descriptions for appropriate classification in the several inventory areas and their divisions. Again, related projects classified in the same section may be separated by the arbitrary alphabetical listing by sponsorship—first, by public agency, then by research bureau and institute, and so on. Finally, many projects classified in separate areas and sections of the inventory possess phases that are intimately related.

The cross referencing system follows the scheme of the inventory's organization, and the symbols used conform to those used to indicate the order of organization. Thus, a reference, 'See also IC(d) 1c' means: see Part I; Section C under Part I; subsection (d) under Section C; project number 10 under subsection (d). The table of contents and the outlines constitute convenient indexes to the cross reference system.

ACKNOWLEDGMENTS

The compilation of an inventory of this character has necessarily imposed inconvenience and sacrifice on all who cooperated in it. The Exploratory Committee on Financial Research wishes to acknowledge its indebtedness to all who have contributed so liberally in bringing its work to a successful conclusion. Special acknowledg-

ment is due the Central Statistical Board and to Aryness Joy and Edwin M. Martin of the Board's staff who actively collaborated in the preparation of the inventory. Not only did the Board generously make its facilities available but also sent special inquiries to all Federal agencies and departments interested in financial research, and the Board's staff have personally requested various authorities to cooperate with the Committee. In addition, the general accuracy of descriptions of the research of Federal agencies was verified with the assistance of the Central Statistical Board. The Committee has endeavored to reciprocate by making all materials independently collected, other than those submitted confidentially, freely available to public agencies.

• RALPH A. YOUNG
Secretary

PART I

Organization and Structure of Finance

TYPES OF PROJECT

Projects classified in this area are of the following types: (a) those devoted principally to the objective description of the development or present constitution of international and domestic monetary organization and agencies; (b) those describing in considerable detail some phase of the development, organization, and operating characteristics and practices of specialized agencies and institutions currently rendering various financial services directly to the community; (c) those concerned primarily with the interrelationships among financial agencies and institutions, competitive and functional; (d) those dealing with the soundness of contemporary financial agencies or institutions in relation to the economic setting in which they operate and to the functions and ends they may endeavor to serve.

PART I

Organization and Structure of Finance

A. *International Monetary Organization*

- | | | |
|---------------------------------------|---|--|
| (a) Gold standard | } | Legislative provisions and features |
| (b) Other standards | | Organization and institutions |
| | | Adaptiveness to needs of individual economies |
| (c) International financial relations | } | Interrelations of financial institutions |
| | | Interdependence of commodity and financial markets |
| | | International debt and the flow of funds |

B. *Domestic Monetary Organization*

- | | | |
|---------------------------|---|-------------------------------|
| (a) U. S. Treasury | } | Powers |
| (b) Federal Reserve banks | | Policies |
| (c) Deposit banks | | Methods of executing policies |
| | | Interaction of operations |

C. *Financial Institutions—Development and Operation*

(a) Development of banking institutions	Liabilities	Capital
(b) Operating aspects of banking institutions		Surplus
(c) Trust departments and companies	Assets	Demand deposits
(d) Consumer and other finance agencies		Time deposits
(e) Investment credit agencies		Borrowed funds
(f) Urban mortgage institutions		Loans
(g) Agricultural credit institutions		Investments
(h) Federal credit agencies		Cash, reserve balances
		Property owned
	Type of service	
	Methods of operation	
	Administrative problems	
	Earnings and expenses	
	Geographic distribution of credit facilities and credit needs	
	Financial collapse and deficiencies in facilities	
	Economic recovery and the reconstruction of facilities	

D. *Interrelationships among Financial Institutions*

(a) Money markets	{ Organization
	{ Functioning
(b) Competitive relationships	{ Services
	{ Interest rates
	{ Conditions of credit granting
(c) Interlocking ownership	
(d) Relation to business and the public	{ Depositories and borrowers
	{ Lenders and investors

E. Soundness of Financial Institutions

- (a) Composition and variability of liabilities { Business deposits
Financial deposits
Public deposits
Consumer deposits
Savings deposits
Borrowed funds
- (b) Composition of assets { Liquid
Rediscountable
Salable
Frozen
- (c) Causes of failure { Internal—management
External—business fluctuations
- (d) Survival capacity of financial institutions

A. INTERNATIONAL MONETARY ORGANIZATION

1. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Causes and significance of current international capital movements

This study analyzes statistics of gold movements, capital flow, international trade, and other related developments, with special reference to monetary and credit policies.¹

A continuing study, results are made available at intervals in the Federal Reserve *Bulletin*.

See also IIA6 and 8

2. FEDERAL RESERVE BANK OF NEW YORK, RESEARCH DEPARTMENT

International monetary organization and policy

Essentially confined to contemporary international financial problems, this investigation comprises a series of closely related studies prepared independently by individual members of the Research Department. Its scope and content is effectively disclosed by the subjects of the separate studies: (a) the adequacy of existing cur-

¹ See, for example, Review of the Month in the Federal Reserve *Bulletin*, July 1936.

rency mechanisms under diverse circumstances; (b) the present monetary mechanism and position of the United States; (c) operations of the exchange stabilization fund and the gold transactions of the Treasury; (d) the British Exchange Equalization Account; (e) stabilization funds, general applicability; (f) trade areas; (g) monetary standards for young countries; (h) some general implications of recent currency developments. An appendix is devoted to a theoretical analysis of trade adjustments under fixed and free exchanges.

Prepared under the direction of J. H. Williams as a Research Department project, the separate studies that make it up are the product of individual research supplemented by group conferences. They have been assembled without any attempt to reconcile the views expressed and do not pretend to comprise an exhaustive or completely integrated analysis of the subject. They are simply the research findings of the authors, and are not to be construed as defining in any way the position of the bank on current problems. Though recently completed, no plans have been made for the publication of the studies as a group. Preparation was undertaken to meet internal needs for information in this field.

See also IA6; VB1 and 4

3. BROWN, W. A. JR.,
SMIT, C. J., SILVERMAN, A. G.

[BROWN UNIVERSITY]

The international gold standard reinterpreted

The central problem to which this investigation is directed is the meaning and significance to world economic organization of the general collapse of the international gold standard which the worldwide boom and financial crisis of the last decade precipitated. Specifically, it

searches for answers to two major questions: [1] To what forces fundamentally may the breakdown of the post-War gold standard be ascribed? [2] What are the alternatives for the future development of international financial organization, particularly with respect to the application of a gold standard system of currency organization internationally?

The first part of the study deals with the gold standard crisis of 1931 and its background and embraces a detailed examination of: (a) the sources of the various transitional difficulties accompanying the attempt to reestablish the gold standard internationally from 1925 to 1931; (b) the expedients to tide over these difficulties by the Bank of England, the Federal Reserve System and the Bank for International Settlements; (c) the solution of difficulties which various expedients were expected to effect; (d) the development of the gold standard crisis; (e) the fundamental disequilibria in depression conditions preventing a return to the gold standard system and the weaknesses manifested by the system in the post-War era.

The concern of the second part of the investigation is the life history of the international gold standard and covers a detailed historical sketch of: (a) the period of early development, 1873-90, particularly the role and influence of England in fostering its establishment; (b) the period of maturity of the pre-War system from 1890 to 1914, particularly the role of London as an international clearing center and the influence of Rand gold production on the functioning and stability of the pre-War system; (c) the breakdown of the pre-War gold standard system, 1914-19, and the shift in international financial organization occasioned by the War; (d) the period of restoration, 1919-25, and the policies pursued

to bring about restoration; (e) the era of gold standard experimentation, 1925-31, and the international disequilibria with which a restored gold standard system had to contend. A final part of the study is devoted to a summary and reinterpretation of the assembled material with the object of answering the major problems of inquiry.

This comprehensive investigation has been in process since 1932 and is expected to be completed by late fall 1937.

For a description of the quantitative data analyzed in this study, see IIA14; for related studies, see IA9; VB2

4. DIRECTOR, AARON

*The policy of the Bank of England since 1800*¹

The purpose of this study is to describe the successive steps by which the Bank of England evolved from a private bank into a central banking institution responsible for the control of domestic credit and money market conditions. One part is devoted to an intensive statistical review of the operations and policies of the Bank from the restriction of specie payments during the Napoleonic Wars to 1914. Another part surveys the theory of money and banking at the end of the eighteenth century, and traces the development of money and banking theory in England during the nineteenth century, particularly the rise of the theory of central bank control over the money market. A final part relates the development of banking theory to that of Bank of England policy.

This study has been in process for two years, but is not expected to be completed before 1938.

See also VA4, 8-10

¹ Ph.D. thesis, The University of Chicago.

5. ELLIS, H. S.

[UNIVERSITY OF MICHIGAN]

Exchange control in Central Europe

The widespread application of exchange control systems in international currency organization since 1929 raises many important questions concerning the causes of their introduction, their economic consequences, and the possible future applications that authoritarian regulation of foreign payments may have. Devoted to the answer of such questions, the first part of the study surveys exchange control systems in Central European countries, including Austria, Hungary, Czechoslovakia, Germany and Poland. For each individual country, the survey covers: (a) the occasion for the introduction of exchange control; (b) the type of control exercised; (c) various modifications of controls; (d) the efficacy of the controls in solving foreign exchange problems; (e) effects of controls on domestic production, foreign trade, exchange markets and prices. A second division of the study deals with theoretical aspects of exchange controls, particularly with respect to their applicability as measures for controlling flights of currency. In addition, an attempt is made to determine on the basis of experience ideal types of exchange control taking into account possible ends to be served.

Basic materials for this study were collected in 1934 and 1935 under a fellowship grant by the Social Science Research Council. The study is expected to be completed by late spring 1937.

See also IA8

6. GILBERT, MILTON

*Currency depreciation in the latest depression*¹

The causes of currency depreciation subsequent to 1929, and its effects on the depreciating countries and on world conditions, is approached in this study by a consideration of Australia, Great Britain, Sweden and the United States. The attempt is made to marshal all evidences bearing on the immediate causes of depreciation, to trace effects on internal economic conditions so far as these may be identified, and finally, to analyze the possible effects that depreciation may have had on international financial organization. In the final section the common and distinctive elements of each experience are singled out to determine the usefulness of depreciation as an instrument of monetary policy under modern conditions.

The primary research on this investigation was done at the Brookings Institution in 1935-36 under a fellowship from the Social Science Research Council. The study will be completed and published by late fall 1937.

See also IA₂; VB₄

¹ Ph.D. thesis, University of Pennsylvania.

7. GRAUE, ERWIN

[UNIVERSITY OF IDAHO]

Silver, commodity prices and foreign trade

This study undertakes to examine recent silver policies of the United States from their inception in 1933 to the end of 1935, with particular reference to their repercussions on world financial organization and trade. The divisions of the inquiry include: (a) the formative phases of American silver policy beginning with

the London Silver Treaty in 1933; (b) the relationship of silver policy to domestic monetary and price policy; (c) silver valorization and the theory of foreign trade and exchange; (d) the Silver Purchase Act of 1934 and the effects on silver prices of policies pursued under it; (e) the price of silver and American trade with China, 1926-35.

At present in a completed status, publication plans are as yet indefinite.

See also IA11; IIID9

8. HUBER, J. R.

[EMORY UNIVERSITY]

*Exchange control systems*¹

This study traces the origin and development of exchange control systems. Special consideration is given to their legal aspects and the administrative problems to which they give rise, and an attempt is made to evaluate their effects on the volume, value and direction of foreign trade. Clearings and compensation agreements, which have developed as essential adjuncts of exchange control systems, are surveyed and their economic effectiveness appraised.

The study will probably be completed within six months. Publication plans have not been definitely made.

See also IA5

¹ Ph.D. thesis, Princeton University.

9. IRONS, W. H.

*The international gold standard crisis*¹

This study is concerned with the structural changes in international monetary organization affecting the operation of the post-War gold standard system and contrib-

uting to its breakdown. The main subjects treated include: (a) a contrast of features of the pre-War and post-War gold standard organization; (b) changes in the monetization and currency issuing process in leading countries since the War; (c) national financial structures and their conditioning effects on the gold standard mechanism; (d) the effects of domestic monetary and credit policies on international financial stability; (e) trade barriers and exchange depreciation in relation to the gold standard; (f) post-War capital movements and their relation to post-War gold movements. A final part of the study is devoted to an evaluation of the adequacy of gold reserves of leading gold standard countries in 1930, taking into account the important structural changes in post-War international financial organization.

This study is expected to be published in the fall 1937.

See also IA₃

¹ Ph.D. thesis, University of Pennsylvania.

10. LESTER, R. A.

[PRINCETON UNIVERSITY]

*Gold parity depression in Norway and Denmark,
1925-1928*

The return to the pre-War gold parity of exchange by Denmark and Norway in 1926 and 1927 apparently precipitated a severe post-stabilization depression, in a period when other Baltic countries were enjoying pronounced economic recovery and prosperity. Because of the uniqueness of these cases, a study is in preparation to determine: (a) how closely the respective depression experiences during 1926-28 conformed to depression patterns characteristic of these countries in the past; (b) what connections can be traced between the stabilization policies and the economic recessions that occurred. The

experiences of these two countries are compared with that of Sweden, which stabilized at its pre-War parity in 1924, and of Finland, which devalued its currency in 1925. These two countries are selected for comparison because their economies parallel those of Norway and Denmark fairly closely.

Materials for this study were gathered in Europe during the summer of 1936. It is to be completed in 1937 and published as an article in a professional journal.

11. MURAD, ANATOL

[COLUMBIA UNIVERSITY]

*The monetary future of silver*¹

Historical and theoretical in its approach, the study re-examines the monetary role of silver. First, the history of the demonetization of silver is reconsidered, and the movement to restore its monetary position surveyed. In this setting, American silver policy and its significance for the monetary use of silver is analyzed. A final part of the study is concerned with the theory of convertibility as related to silver and with the use of silver as monetary reserves.

Completion of the study is expected by the end of 1937.

See also IA7; IIID9

¹ Ph.D. thesis, Columbia University.

12. SHEPPARD, H. L.

The monetary experience of Belgium, 1914-1936

The successive devaluations of the Belgian currency unit are studied from the standpoint of the economic and political developments preceding them as well as the circumstances immediately attending. In the first part,

the post-War inflation is traced to its origins in the events of War-time occupation and the financial decisions made after the Armistice to meet pressing social and economic problems. The second part surveys the course of post-War inflation and deals with the solidarity of the French and Belgian francs, financial interactions, and changes in banking conditions. A third section describes the stabilization efforts, and a fourth concerns post-stabilization economic developments, the strains of deflation and the breakdown of the post-War parity. In the latter connection, the study analyzes the recovery program adopted subsequent to the second devaluation, and its relationship to devaluation policy.

Recently completed, this study has been published under the auspices of the International Finance Section of the Department of Economics and Social Institutions in Princeton University.¹

¹ Princeton University Press, Princeton, 1936.

13. SOUTHARD, F. A., JR.

[CORNELL UNIVERSITY]

Methods of financing export and import trade

In order to discover more definitely the nature of the methods and practices current in financing American foreign trade, a questionnaire survey is being conducted covering separately the financing activities of American exporters and importers. From exporters, information is being sought relative to: (a) the type of foreign sales outlets; (b) the terms of sale as between good and doubtful risks; (c) methods of handling exchange risks; (d) collection practices, including the discounting of acceptances and borrowing against collections; (e) the effects of tariffs and other trade or financial barriers. The questionnaire to importers is to be drafted along

more or less parallel lines, buyers' rather than sellers' financing problems being the subject. Over seven hundred exporters' questionnaires, mainly to manufacturing exporters but also to exporters of staples, have been sent out, and approximately an equal number of importers are to be covered.

The results of these surveys are expected to be presented in articles that will appear in professional journals during 1937.

14. STOKES, M. L.

[LEBANON VALLEY COLLEGE]

*The development of central banking in Canada*¹

Primarily historical in approach, this study traces the rise of the central banking ideal in Canada and the final expression of the ideal in the Bank of Canada Act. The first part of the study reviews Canada's pre-War monetary organization and also her changing monetary needs as reflected in War and post-War developments and adjustments. A second part analyzes the proceedings and reports of the Royal Commission on Banking and Currency and the debates in the House of Commons on the Bank of Canada Bill. A final section deals with the Bank of Canada Act, the organization of the Bank of Canada, and the operations of the Bank in 1936. The object is to determine the functions that a central bank may serve under a highly integrated banking and financial system such as Canada possesses.

This study will be published in late autumn 1937.

See also IC(a) 12

¹ Ph.D. thesis, University of Pennsylvania.

B. DOMESTIC MONETARY ORGANIZATION

I. DUNKMAN, W. E.

[UNIVERSITY OF ROCHESTER]

Operating characteristics of the twelve Federal Reserve banks

The general objectives of this study are: first, to determine the uniformity with which the twelve Federal Reserve banks participate in the general development and cyclical movement of the system; second, to ascertain the unique characteristics of financial conditions in each of the twelve Federal Reserve districts. Two basic sets of data are used: (1) a series of balance sheets of individual Federal Reserve banks and all Federal Reserve banks combined, together with other data that reflect general economic conditions; (2) a set of key series for each bank plus additional series relating to member banks. Following the method of cyclical analysis of the National Bureau of Economic Research, combined balance sheet and other data are being analyzed to determine general reference dates for major changes in financial conditions nationally. District financial statement items are expressed as percentages of the total for all banks, and changes as of reference dates are noted and compared. Other series are then subjected individually to cyclical analysis and related to the reference patterns established. It is ex-

pected to supplement the findings of this analysis with a study of earnings and expenses of Federal Reserve and member banks, bank suspensions, clearings and other data relevant to determining unique characteristics of developments and cycles in the several Federal Reserve districts.

This is a long range project of rather broad scope and completion in the near future is not expected. Results are available at present only for 1933-36, selected as a test period for the various methods employed.

C. FINANCIAL INSTITUTIONS— DEVELOPMENT AND OPERATION

(a) DEVELOPMENT OF BANKING INSTITUTIONS

1. VIRGINIA STATE CORPORATION COMMISSION, BUREAU OF INSURANCE AND BANKING, BANKING DIVISION

Virginia state banks prior to 1904

With a view to extending state banking data for Virginia back as far as records will permit and thus provide continuous banking data for long period analysis, summaries are in preparation of available information working from 1904 back to approximately 1885. The effort is to assemble and combine annual reports of Virginia banks for the years 1885 to 1904, using call statement reports made to the Auditor of Public Accounts.

The program is under the direction of M. E. Bristow, Commissioner of Insurance and Banking, financed by WPA funds, and is expected to continue indefinitely.

2. UNIVERSITY OF ARKANSAS, COLLEGE OF AGRICULTURE, DEPARTMENT OF RURAL ECONOMICS, IN COOPERATION WITH THE ARKANSAS BANKERS ASSOCIATION

Banking conditions and trends in Arkansas

In order to attain a more satisfactory conception of the banking organization of Arkansas and the various conditioning factors to which it is subject, this survey under-

takes to show the changes since 1923 and to describe the present state banking structure. The data analyzed to reflect general changes in banking are: (a) the number and type of banks operating in 1923, 1926, 1929 and 1935; (b) asset and liability data for national and state banks; (c) bank suspensions; (d) income and expense sources; (e) reorganizations of closed banks. Those used to reflect changes in the banking structure are: (a) asset and liability data of banks of different sizes, location and competitive influences; (b) earnings and expense data similarly treated; (c) bank failures and reorganizations by size and location. This part of the project is to be followed by another depicting the geographical structure of banking with special reference to the industrial and agricultural activities on which Arkansas banks depend. A final section of the investigation is treating the types and terms of loans and investments of Arkansas banks as of September 1936. This analysis will cover loans and investments by classes of borrowers, the modal size of loans, and the terms of loans, including fees in addition to interest.

In preparation under the direction of K. H. Hunter in cooperation with the Research Committee of the Arkansas Bankers Association. The study will probably not be finished before late 1938.

See also IE7

3. BROOKLYN COLLEGE, BUREAU OF ECONOMIC RESEARCH

Brooklyn banking developments, 1900-1934

This investigation examines in considerable detail banking data covering a restricted area. Its objective is to trace the growth of banking facilities in a single metropolitan area and to relate the local banking tendencies disclosed

to broader financial trends. The first of the three main parts into which it is divided treats of: (a) the development of purely *local* commercial banking institutions (national banks, state banks, trust companies); (b) the rise and spread of branch banking; (c) changes in the local banking structure through mergers and consolidations; (d) bank failures in 1907-08 and 1929-33. The second part studies the penetration of the Brooklyn banking field by Manhattan institutions, and is concerned with: (a) the absorption of Brooklyn units by Manhattan banks; (b) the establishment of branches of Manhattan banks *de novo*; (c) changes in the importance of local control as against Manhattan control of Brooklyn banking facilities. A final part is concerned exclusively with the development of Brooklyn savings banking, and covers: (a) tendencies in the organization of savings banking facilities as, for example, competition between commercial banks and savings banks, branch banking, mergers; (b) the trend of savings deposits and changes in savings deposits occasioned by panic conditions from 1930 to 1933; (c) financial problems confronting savings banks in recent years by virtue of the type of assets held.

Prepared under the direction of W. H. Steiner, this study is at present in a preliminary manuscript form. Definite publication plans have not yet been decided.

4. UNIVERSITY OF COLORADO, BUREAU OF BUSINESS
RESEARCH, IN COOPERATION WITH THE COLORADO BANKERS
ASSOCIATION

Banking conditions in Colorado

The subjects under investigation are, first, the causes of bank failures in Colorado; second, the nature and extent

of competition to which Colorado banks are subject, both with other types of financial institution and with out-of-state agencies; third, the costs of operating banks in Colorado and the sources of income from 1931 through 1935. Data are being assembled from reports of the several supervisory agencies, and in addition questionnaire surveys and field investigations are being made. The study is intended to individuate the various factors affecting the operation of banking institutions within a single state.

In preparation under the direction of J. M. Whalley, the expected date of completion is June 1937.

5. UNIVERSITY OF DENVER, BUREAU OF BUSINESS AND
SOCIAL RESEARCH

Banking in Colorado

Reviewing changes in the banking structure of Colorado in recent years with the aim of providing a quantitative basis for appraising the adequacy of present banking facilities, this study surveys in detail the distribution of banking facilities and resources by areas for selected years, and compares facilities in different years for the state as a whole and for different areas.

Prepared under the direction of E. T. Halaas this study was published in the *University of Denver Reports*, April 1937 (Business Study No. 86).

6. UNIVERSITY OF ILLINOIS, BUREAU OF BUSINESS RESEARCH

Banking outlets in Illinois

This study is concerned with changes in the number and kind of banks in Illinois together with explanations of some of the economic causes underlying them. It is not

intended to advance new explanations, but rather to show that certain defects have existed in the past, are still present and may contribute to future banking difficulties. Illinois, being one of the leaders in number of banks, and also in bank failures, offers a fertile field for this type of study. Banks are being classified according to whether they are state or national, whether they belong to the Federal Reserve System; by size of community, size of bank, geographical area and other features. Detailed analysis is being made of turnover by size of bank and of community. The study goes back to the time when private banks were still permitted in Illinois, and seeks to explain some of the subsequent problems in the light of these earlier conditions.

In preparation under the direction of Arthur H. Winakor as a Research Bureau project, it will probably be completed by summer 1937.

7. UNIVERSITY OF NEBRASKA, DEPARTMENT OF BUSINESS RESEARCH

Adequacy of banking facilities in Nebraska

This investigation was planned to develop objective standards for assessing the adequacy of banking facilities in such states as Nebraska which have experienced an excessively high rate of bank failures in recent years. First, an attempt was made to present a comprehensive picture of banking facilities as of 1908, 1920 and 1935 for incorporated municipalities, classified by population, banking resources, volume of retail and wholesale business, freight shipments, postal receipts, assessed valuation of property and location. Second, a selected group of towns without incorporated banking facilities were studied to determine the adjustments that have been

made by local populations in meeting their needs for banking. In addition, towns of similar size, wealth and business volume were compared in order to determine the minimum economic resources capable of supporting an independent unit bank. Third, historical comparisons were made of selected banking centers and the financial status of unit banks situated in them ten to fifteen years ago and today. Fourth, the economic basis for banks in bankless towns and efforts to solve the problem of bankless towns in Nebraska and neighboring states were analyzed.

Prepared by E. A. Gilmore, Jr., with the cooperation of the Nebraska Bankers Association, this study was recently published (Nebraska Studies in Business No. 39).

8. OHIO STATE UNIVERSITY, BUREAU OF BUSINESS RESEARCH

State and national banking in Ohio, 1920-1936

This project is concerned with changes in the Ohio banking organization and structure, 1920-36. The object is to ascertain the essential features of prevailing banking organization against a background of rapid change. In process of investigation are: (a) changes in banking and other financial facilities for the state as a whole and its subdivisions; (b) changes in the character of bank assets and liabilities; (c) a comparison of state and national bank failures; (d) bank reorganizations and liquidations and the expenses connected therewith; (e) earnings and expenses of Ohio banks.

In preparation under the direction of J. M. Whittsett of the Department of Economics.

9. KANSAS BANKERS ASSOCIATION, COMMITTEE ON BANK MANAGEMENT

Bank failures in Kansas and the adequacy of existing banking facilities

At present in a formative stage the plans of this study call for a searching investigation of bank failures in Kansas, based on an examination of the circumstances attending the suspension of a number of representative banks. Against a background of these data, existing facilities are to be surveyed with a view to appraising their adequacy. It is the intention in this part of the study to develop the minimum population and area requirements that experience seems to show are necessary to maintain an independent unit bank.

In preparation under the auspices of the Committee on Bank Management. Frank T. Stockton, Dean of the School of Business, University of Kansas, is cooperating in planning the project.

10. MISSOURI BANKERS ASSOCIATION, COMMITTEE ON BANKING DEVELOPMENTS

Banking developments in Missouri

The program of research projected under this study calls for a long period analysis of external and internal factors affecting Missouri banking conditions. On the one hand, it contemplates an analysis of prices, production and balance of payments elements influencing business and personal incomes in Missouri and the relationship between changes in these elements and changes in banking conditions. On the other hand, it plans an intensive study, covering the last decade, of the activities of banking units of similar size operating under comparable

economic conditions, including both banks that failed and banks that did not fail. The latter half of the study is to entail a ratio analysis of financial and income statements of a representative sample of banks, and a classification of banks by size of community, capital, deposits, assets and the like. The adequacy of present banking facilities in Missouri is to be appraised with this background in mind.

In preparation as a long term project under the auspices of the Committee on Banking Developments. In view of its scope the study is to be developed piecemeal. A survey of present banking facilities has already been completed; the study of bank failures and their causes is still in process. Several university experts are lending their cooperation in shaping the program. Results are to be published by the Association as available.

11: DAILEY, D. M.

[THE UNIVERSITY OF CHICAGO]

The development of banking in Chicago, 1836-1890

This study is tracing historically the development and growth of banking facilities in the Chicago area from 1836 to 1890. The main sections are concerned with: (a) the rise and dominance of private bankers before 1860, the issue of bank notes by private bankers and the emergence of incorporated banking in the 'fifties; (b) the evolution of specialized banking functions, including deposit, discount and note issuing functions; (c) the progress of the chartered banks, their organization and practices, and the rise of an organized money market.

An outgrowth of a doctoral thesis submitted to Northwestern University in 1934, this study is virtually completed and is expected to be published in 1937.

See also IC(e)4; ID8.

12. HOLLADAY, JAMES

[UNIVERSITY OF ALABAMA]

The Canadian banking system

Both descriptive and analytical in method, this study comprises a survey of the structure and organization of the Canadian banking system, and an analysis of the operating practices of Canadian banks, together with the theories underlying them. The first part deals with the currency system and provides both an historical account of its development and a cross sectional view of its present composition and mechanics. The second part describes comprehensively the banking organization of Canada and takes up in order: (a) the process of incorporating Canadian banks and the important provisions of Canadian banking law regulating incorporations; (b) the internal organization and management of Canadian banks and especially the system of controlling the operations of branches; (c) the concentration movement in Canada and the forces conditioning it; (d) the deposit structure of Canadian banks according to the class and maturity of deposits, the kind of depositors, the size of deposit accounts, the turnover of deposits and their relation to reserves; (e) the transfer of funds between banks and areas; (f) loan procedures and loan restrictions. The third part analyzes: (a) the operation of the Canadian Finance Act; (b) the various problems leading up to the establishment of the Bank of Canada; (c) the organization and powers of credit control of the Bank of Canada. The fourth part of the study deals with agricultural credit agencies and savings banks and the relation of their activities to those of the chartered banks. The final part contrasts the branch banking system of Canada with the unit banking system of the United States from the angle

of their respective effectiveness in meeting the needs of the community for credit facilities and services.

Recently completed, publication in book form is expected in the near future.

See also IA14

13. MCCAFFREY, W. T. [LINCOLN NATIONAL BANK AND TRUST COMPANY, SYRACUSE, N. Y.]

*The banking systems of England and the United States*¹

Historical in method, this study contrasts the development of banking in England and the United States over the last century and a half. The subjects treated include: (a) banking in England to 1826 and in the United States to the second Bank of the United States; (b) the rise of joint stock banking in England and chartered banking in the United States; (c) the development of branch banking in England and of unit banking in the United States; (d) the role of the merchant banker, discount house and bill market in English banking organization and of money market organization in the United States; (e) central banking in England and in the United States and the bases of differences in central banking organization and practices.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

14. PRESTON, H. H., [UNIVERSITY OF WASHINGTON, COLLEGE OF ECONOMICS AND BUSINESS]

Seven decades of Washington banking

Tracing the organization and growth of banking facilities in the State of Washington over the last seventy years, the first half of the study is concerned with the

general development of banks, banking legislation and bank supervision in the northwest area through the crisis of 1933. In the second half, the present structure of financial organization in Washington is analyzed. This analysis covers the role and functions of such financial agencies as savings banks, trust companies, personal finance companies, mortgage and investment banks, agricultural credit agencies, and the Federal Reserve System. It also deals with banking concentration tendencies as reflected in mergers, consolidations, and branch and group banking; and further appraises present services rendered and problems currently confronting Washington banking as disclosed by the various trends studied.

This study is approaching completion and is expected to be published as one of the Social Science Series of the University of Washington. Financial assistance has been given by the Social Science Research Council.

15. SORRELL, V. G. [UNIVERSITY OF NEW MEXICO]

Trends in banking in New Mexico, 1920-1935

On the basis of analysis of important balance sheet items of state and national banks in New Mexico, trends in banking since 1920 are being studied. Available data are being broken down into areas, viz: by the two Federal Reserve Districts represented in the state and by clearing house districts.

This is a research project of the Department of Economics of the University of New Mexico in cooperation with the New Mexico Bankers Association. Completion is expected by summer 1937.

16. STEINER, W. H.

[BROOKLYN COLLEGE]

South Carolina cash depositories

Under the stress of banking panic in 1932, South Carolina authorized the formation of cash depositories, to receive deposits and keep the funds received available in cash; loans and general investment were forbidden. Approximating in their operations the 100 per cent plan of banking, the introduction and growth of these depositories has a unique interest. While originally regarded as temporary institutions, the number of South Carolina depositories has slowly increased since the banking crisis, and in several small towns they provide the only banking facilities. This study includes a survey of their rise and development, together with an appraisal of their importance, and an analysis of factors affecting their existence.

The study has been completed and is to be published as an article in a professional journal in 1937.

17. TURNER, A. P. L., JR.

[BOWDOIN COLLEGE]

The national banking system

Essentially historical in approach, the purpose is to study the legal and institutional aspects of American banking, with special reference to the place and role of national banks in the banking system. Against this legal and institutional background, national banks are analyzed from the standpoint of contemporary and recent banking theory and of the general economic and financial development of the country. The principal materials of the study are drawn from legislation and contemporary theoretical works on money and banking. The most

important statistical materials assembled are for banks other than national before 1900.

Historical materials up to 1879 used in certain parts of the study were assembled in connection with a Ph. D. thesis accepted by Harvard University in 1935.

(b) OPERATING ASPECTS OF BANKING INSTITUTIONS

I. FEDERAL RESERVE BANK OF BOSTON, RESEARCH DEPARTMENT

Member bank income and expenses, 1936

Continuing previous studies of member bank earnings and expenses for the First Federal Reserve District, detailed ratio analysis is made of receipts and payments in 1936 for all member banks of the District, Boston member banks, and all outside member banks classified according to their percentages of time deposits. Ratios typical of the greatest number of banks are computed for: (a) receipts and payments as percentages of total current income; (b) interest rates received and paid; (c) receipts and payments as percentages of loans and investments; (d) losses and charge-offs as percentages of average holdings; (e) earnings to total funds and to capital funds; (f) capital funds to deposits. In addition trends in principal earning and expense items are traced from 1928 through 1936 for all New England member banks outside Boston.

Prepared by the Research Department, the results have recently been published.

2. FEDERAL RESERVE BANK OF DALLAS, RESEARCH
DEPARTMENT

✓ *Typical operating ratios of member banks in the Eleventh
Federal Reserve District*

Supplementing analysis of member bank earnings and expenses made for preceding years, a ratio study is again being made covering 1936. Member banks of the District are classified into six size groups according to the volume of their loans and investments, and typical ratios determined for principal earning and expense items, expressed as percentages both of gross earnings and of loans and investments. Other important ratios include: (a) net earnings to capital and surplus; (b) net addition to profits to capital and surplus; (c) time deposits to gross deposits; (d) capital and surplus to gross deposits; (e) interest on deposits to gross deposits. The analysis will cover ratios for 1929 and 1933 through 1936.

In preparation by the Research Department, publication is expected in spring 1937.

3. FEDERAL RESERVE BANK OF NEW YORK, RESEARCH
DEPARTMENT

✓ *Operating ratios of member banks in the Second Federal
Reserve District*

In continuation of studies carried on the last few years, average operating ratios of member banks in the Second Federal Reserve District are being analyzed. Ratios included cover (a) income, expense and net profit to total earnings from current operations, (b) asset and liability ratios, (c) rates of earnings. They are to be presented, as in former years, for member banks outside Greater

New York City by three size classes and by the ratio of time deposits to total deposits. For Greater New York City banks, ratios cover two size classes only. Analysis by size classes is for the last two years, and for all banks, the last four years.

In preparation by the Research Department, this analysis will be published in spring 1937.

4. FEDERAL RESERVE BANK OF PHILADELPHIA, RESEARCH DEPARTMENT

*Earnings and expenses in 1936 of member banks in the Third Federal Reserve District*¹

A ratio analysis is in preparation covering earning and expense ratios, and other significant operating data for national bank members, state bank members, and national bank members grouped by the percentage of time deposits held. For each group, ratios will be presented by size classes based on deposits, and will concern major earning and expense items expressed as percentages of total loans and investments most typical of banks falling within selected size classes. The operating ratios, also included, will cover: (a) loans and investments to total deposits; (b) capital to total deposits; (c) investments to total loans and investments; (d) interest paid on time deposits; (e) income from loans and from investments to total loans and total investments; (f) losses on loans to average loans and on investments to average investments.

In preparation by the Research Department, publication of the analysis is expected by summer 1937. Analyses of this character were made in 1925, 1927, 1929 and 1934.

¹ Studies of earning and expense and other operating ratios of member banks in 1936 are also in preparation for publication by the Federal Reserve Banks of Chicago and Cleveland. They measure respectively

typical accomplishment of member banks classified by size according to resources and to loans and investments. The above descriptions of the earning and expense analyses of the Federal Reserve Banks of Boston, Dallas, New York and Philadelphia are sufficient to indicate the scope and content of this type of current investigation.

5. U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF
AGRICULTURAL ECONOMICS, DIVISION OF AGRICULTURAL
FINANCE

*Factors of banking success or failure in Arkansas,
Utah and Wisconsin*

One part of this study deals with the earnings and expenses of banks, and attempts to relate earning and expense items to the composition of the assets and liabilities. Net earnings, dividend policy and losses are related to changes in the capital structure of the banks. Data on earnings, expenses and dividends were obtained from reports on file with supervising officials covering the period 1927 to 1934, inclusive.

In preparation under the direction of F. L. Garlock, in cooperation with the respective state agricultural experiment stations and colleges.

For the main description of this study, see IE7

6. AMERICAN BANKERS ASSOCIATION, STATE BANK DIVISION

*Survey of resources, liabilities, earnings and expenses
of state banks*

Supplementing surveys made over the last five years, the condition of state banks in 1936 is to be summarized. Data presented will cover: (a) resources and liabilities for 1936 and five preceding years by all state supervised banks, state commercial banks, loan and trust companies, savings banks, private banks; (b) resources

and liabilities of different types of state supervised banks by states; (c) comparative ratios, 1931-36, of principal asset and liability items of state banks doing a commercial banking business by states; (d) earnings and expenses of state banks engaged in commercial banking by states; (e) comparative earning and expense ratios, 1934-36, for state banks engaged in commercial banking by states and by size groups according to deposits.

This survey will be published as a pamphlet by summer 1937.¹

¹ As an example of earlier surveys, see the 'Condition of State Banks, 1935,' State Bank Division, American Bankers Association, July 25, 1936.

7. AMERICAN BANKERS ASSOCIATION, AGRICULTURAL COMMISSION

Farm credit relations of banks

A questionnaire survey is being conducted by the Agricultural Commission with the cooperation of country bankers, county agents, extension workers, officers of state bankers associations, etc., throughout the United States, to determine: (a) what bankers are doing and what they can do further in each section of the country to aid farmers in problems of farm credit and finance; (b) what activities by banks make for better understanding of farming by bankers and for better understanding of banking by farmers. It is also planned to survey the agricultural credit services rendered by banks and to show how farmers can cooperate in maintaining them by sound practices of farm finance.

The results of this survey are to be made available in 1937.

8. AMERICAN BANKERS ASSOCIATION, BANK MANAGEMENT COMMISSION

Investment standards and procedure

In view of the acuteness of current problems of investment policy that confront banks, this study analyzes alternative investment procedures from the standpoint of such considerations as: (a) the size of the investment account in relation to capital and the composition of deposits; (b) sources of investment information; (c) essential elements to be determined prior to purchasing individual bonds. Standards for judging the investment merit of specific securities are also treated.

This study was published in April 1937 (No. 19¹).

See also IC(b) 18, 19 and 22; IE8, 10 and 12; IVC2 and 5

¹ Related studies published by the Bank Management Commission include: 'Secondary Reserves and Security Buying' (No. 3, 1929); and 'Investment Policies of Banks' (No. 11, 1932).

9. AMERICAN BANKERS ASSOCIATION, BANK MANAGEMENT COMMISSION

Loan administration policies

Changes in the lending policies of banks induced by altered business conditions have prompted this new study of present day bank loan policies. It will deal with: (a) the relation of loan policy to turnover in deposits; (b) the diversification of loans by type of borrower and business, kind of collateral, interest rates, compensating deposit balances, eligibility of paper for rediscount, etc.

This study is expected to be published in 1937.¹

See also IE8 and 10; IVA1 and 3

¹ The first study published (1928) by the Bank Management Commission had the same title.

10. AMERICAN BANKERS ASSOCIATION, BANK MANAGEMENT COMMISSION

Pay-as-you-go checking accounts

Because of the current interest in 'pay-as-you-go' or 'no-minimum-balance' checking accounts, this study analyzes in some detail this type of checking account system. Data, assembled by questionnaires to all banks using this type of system, cover costs, charges and procedures. A plan is proposed, based on the analysis of questionnaire replies, for a standard 'pay-as-you-go' checking account plan.

The results of this study were published in March 1937 (Commercial Bank Management Booklet No. 18).

See also IC(b) 21

11. AMERICAN BANKERS ASSOCIATION, BANK MANAGEMENT COMMISSION

Purchasing bank supplies

In view of the necessity under present conditions for effecting every possible reduction of bank operating expense, this study deals with possible economies from a more careful control of bank purchases and inventories. The purpose is to determine: (a) standards for amounts of supplies ordered at one time; (b) the most effective purchasing procedure; (c) economies through the standardization of bank forms.

This study is to be published in 1937.

12. AMERICAN BANKERS ASSOCIATION, BANK MANAGEMENT COMMISSION

Standard accounts and standard statements for banks

To meet the need for standard classification of accounts in the general ledger of a bank and for the development of a standard terminology to apply to accounts, this study analyzes in detail the most approved bank accounting practices. The objects are to identify all accounts usually required by banks; to enumerate the items entering into each account; to provide special accounts for unusual items; to facilitate the compilation of official and unofficial statements from accounts; and to formulate a more consistent outline of bank operating and condition statements.

This study is scheduled for publication in 1937.

13. IOWA BANKERS ASSOCIATION, BANKING ANALYSIS COMMITTEE

Earnings and expenses of Iowa banks

Continuing previous studies of earnings and expenses of all incorporated banks in Iowa, national as well as state, which now extend over thirteen years, the distribution of gross earnings of all banks for 1936 is being analyzed. This analysis, which is prepared by size classes, serves the dual purpose of supplying a reference base for comparing the operating performance of individual banks and of supplementing earlier studies of trends in costs and earnings of Iowa banks.¹

In preparation by the Banking Analysis Committee with the cooperation of the State Banking Department

and the Federal Reserve Bank of Chicago; the Association will publish the results by June 1937.

¹ See H. G. Pett, 'Analysis of Earnings and Expenses of Iowa Banks Covering Eleven Years to January 1, 1935,' *Proceedings of the Forty-Ninth Annual Convention, Iowa Bankers Association, 1935*, pp. 68-87.

14. KENTUCKY BANKERS ASSOCIATION, BANKING RESEARCH COMMITTEE

Bank service charges

In order to ascertain the extent to which special service charges are imposed by Kentucky banks, their amounts and purposes, a survey of current practices of all Kentucky banks has been launched. By means of a questionnaire data are being collected on charges for: (a) checking accounts and check books; (b) cashing checks for non-customers; (c) issuing special checks and transfers to customers and non-customers; (d) overdrafts and returned checks; (e) temporary accounts; (f) discount charges on small notes; (g) commissions on real estate loans.

In preparation under the auspices of the Banking Research Committee, results are to be made available to Association members by spring 1937.

15. WASHINGTON BANKERS ASSOCIATION, BANKING RESEARCH COMMITTEE

New channels for bank loans

To ascertain more definitely the nature and relative importance of alternative channels for bank loans in Washington, this project is undertaking a statewide survey of prevailing credit demands. A number of questionnaires are to be sent out to banking and business institutions, and

in addition field studies are to be made in one or more specimen agricultural counties and large centers. Consumer lending experience is to be investigated, special consideration being given to the possibilities of consumer credit lending. The study is also to concern itself with governmental lending agencies and other competitive sources of credit.

In preparation under the auspices of the Committee on Banking Research, completion is expected within six months.

16. HOLL, L. C.

[THE CHASE NATIONAL BANK,
NEW YORK, N. Y.]

*The administration of local bank branches*¹

A complete unit branch must provide, at a reasonable cost, all the banking services required to meet the financial needs of the community. The several factors entering into organization of unit branches, such as operations, accounting, branch examinations, branch continuous audit, business development, and conversion of funds are examined to determine how unit branches can best supply adequate services economically and under proper control of management and administration. Special attention is given to scientific methods in bank management; the importance of personnel analysis and development, both clerical and official; the need for professional management and its application to the supervision of branches.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

17. MCKEE, C. W.

[WESTMINSTER COLLEGE]

*Sources and uses of bank funds, Shenango and
Mahoning Valleys, Pa.*¹

Devoted to tracing the sources and uses of bank funds in a restricted semi-industrial area, this project divides itself into three main parts. The first part compares, over the last ten years, trends in asset and deposit categories of banks situated in the Shenango and Mahoning Valleys with those of other regional bank groups, and analyzes the tendencies in conversion policies that these trends reflect. The second part entails a detailed study of all current deposit accounts of selected local banks to ascertain their sources, activity and costs, and a related study of the loan and investment policies of these banks. The final part of the project contains an appraisal of the loan and investment policies of Shenango and Mahoning Valley banks from the standpoint of their local business and economic environment. At present six representative banks are cooperating in providing detailed data covering their deposit accounts and their loan and investment portfolios. Several measures of local business activity have been compiled for use in conjunction with the several parts of the analysis.

¹ Ph.D. thesis, Columbia University.

18. MOORE, D. A.

[FIRST NATIONAL BANK,
ATTAMONT, N. Y.]

*'Money rate' bonds of country banks*¹

A review of bank failures and the loss of capital funds in the latest depression, as a result of security depreciation, gives the setting for this study of the role of

'money rate' bonds in the investment accounts of country banks. Two divergent investment policies are intensively analyzed: one contemplating an investment portfolio of bonds influenced mainly by money rates, and the other permitting an investment account comprised mainly of other classes of bonds. The relative merits of these two divergent investment policies are assayed from the standpoint of the country bank.

See also IC(b)8

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

19. MUNROE, T. W. [FIDELITY DEPOSIT BANK, DERRY, PA.]

*The investment problem of a small bank*¹

This study analyzes the difficulties confronting the small country bank in formulating an effective investment policy and the further difficulties of applying an appropriate investment policy that arise from the lack of investment training of bank officers and the inadequacies of investment information available to them. Various distributions of assets are first considered to determine the relative size of the investment account most compatible with the liability structure typical of small banks and the banking functions that the investment account must serve. Securities of different grades and qualities are then appraised from the standpoint of their eligibility for inclusion in the small bank's investment account. A final part of the study is devoted to problems of adapting bank investment to changing economic conditions.

See also IC(b)8

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

20. PATTON, W. J. L. [THE NATIONAL CITY BANK,
NEW YORK, N. Y.]

*Ideal bank statements*¹

Criticisms of published bank statements are listed and alleged obstacles in the way of standardization and improvement noted. Examples of published statements for the last fifty years are then used to illustrate the lack of any substantial improvement in methods of presentation or type of information shown. This is followed by an outline of the standardization work of the Federal Deposit Insurance Corporation, and an analysis of items that should be included in bank statements to make them more informative and useful. Operating statements are similarly treated, and the arguments for and against publication presented.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

21. ROKAHR, THEODORE [FIRST CITIZENS BANK AND TRUST
COMPANY, UTICA, N. Y.]

*Service charges on small checking accounts*¹

Devoted to an examination of the so-called pay-as-you-go checking account plans, this study attempts to discover their faults and weaknesses and outlines a procedure whereby banks may attain, on a sound and profitable basis, the objectives that the pay-as-you-go plans were designed to accomplish.

See also IC(b) 10

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

22. WILKINSON, J. H., JR. [STATE-PLANTERS BANK AND TRUST CO., RICHMOND, VA.]

✓ *The security investment account of a commercial bank*¹

The essential functions performed by the security investment account of a commercial bank, which embraces both the secondary reserve account and the investment account proper, are assessed in relation to the capital account and to the amount and type of other assets. The object is to establish a framework of investment policy for commercial banks based on experience since 1929. Matters of internal procedure such as methods of buying bonds and costs of investment administration are carefully considered, as are also external factors such as the policies of the Federal Reserve System and regulations of the Comptroller affecting the investments of national and state member banks.

See also IC(b)8

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

(c) TRUST DEPARTMENTS AND COMPANIES

I. AMERICAN BANKERS ASSOCIATION, TRUST DIVISION

Studies in trust business

The results of several separate studies conducted over the last three years by the Trust Division and also by the Trust Research Department of the Graduate School of Banking, American Institute of Banking, are combined to provide a comprehensive survey of the administrative and operating problems encountered in the conduct of a trust business. Among the different aspects of

the trust business covered are: (a) policies in accepting and retaining trusts; (b) the training of trust department employees; (c) costs of trust administration and bases of compensation for trust services; (d) responsibilities of trust directors and discretionary powers of trustees; (e) administrative problems of irrevocable trusts and co-trusteeships; (f) methods of handling premiums and accumulated discounts; (g) the relation between trust and investment counselor services; (h) social aspects of spendthrift trusts; (i) public trusteeships and state guarantee of trusts; (j) experience with common trust funds in the United States and other countries; (k) the functions of government supervision of the trust business.

In preparation by Gilbert T. Stephenson, Director of Research, Trust Research Department, Graduate School of Banking, American Institute of Banking, this study is expected to be published in the fall 1937.

2. BITTNER, P. W. [FIRST NATIONAL BANK AND TRUST COMPANY, GREENFIELD, MASS.]

*The investment organization of a
small trust department*¹

The purpose of this study is to determine an organization for the average small trust department that will both be efficient and provide effective compliance with present rules and regulations of bank supervisory authorities affecting trust business. The analysis covers: (a) factors determining investment policies for trustees, particularly the legal elements and requirements of various jurisdictions; (b) the organization of trust investment in small departments, the duties and responsibilities of directors, and the functions and organization of the trust investment committee; (c) the records, reports and other equipment

necessary for the effective operation of trust departments. Information on methods of operation of small trust departments has been assembled in conjunction with the study by a questionnaire survey covering approximately a hundred and fifty banks of moderate size.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

3. DORMAN, B. K. [FIRST NATIONAL BANK OF SHREVEPORT, SHREVEPORT, LA.]

*Trust business in Louisiana in the light of its
civil law background*¹

To determine the effects of Louisiana's unique legal system on the development of trust business within the state, this study examines all Louisiana statutes, court cases and decisions affecting all forms of trust business. Against this background, the development of trusts in Louisiana is analyzed and compared with their development elsewhere.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

4. DUNN, C. W. [FRANKLIN BANK AND TRUST COMPANY, EVANSVILLE, IND.]

*The use of common trust funds by a
small trust department*¹

To determine the practicability of adapting the common trust fund to the use of the small trust department, this study combines: (a) a review of the history of common trust funds in foreign countries; (b) a special examination of the methods of administering common trust funds in New Zealand; (c) a primary inquiry into the experi-

ence of a few large banks in this country that have operated common trust funds; (d) an analysis of the legal status of such funds in states that have authorized them.

See also IC(c)9

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

5. FISCHER, L. W. [AMERICAN NATIONAL BANK AND TRUST COMPANY, CHICAGO, ILL.]

*The bases of trustee compensation*¹

Various bases of trustee compensation are examined in this study to determine their adequacy in relation to the costs of services rendered by corporate trustees. This entails analysis of previous practices in fixing charges and fees for trust service and an evaluation of present tendencies and suggested changes in practice. The different cost elements affecting the administration of trust accounts of the same value are indicated, and methods are suggested for allowing for cost differentials arising from special activity, trust duties, or other causes.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

6. PATENAUDE, F. W. [MIDDLETOWN NATIONAL BANK, MIDDLETOWN, CONN.]

*Compensation for trust service in Connecticut*¹

As a background for studying the compensation of trust services in Connecticut, probate statistics over the last five years for ten leading cities and towns are studied to ascertain: (a) the number of estates probated of \$25,000 or over in the three large cities and of \$10,000 or

over in the smaller towns; (b) the number of estates in process of settlement by corporate trustees and by individuals; (c) the volume entrusted to each class of trustee expressed at inventory value. Against this background prevailing schedules of fees charged by corporate trustees are critically considered in relation to costs of performing various trust services as disclosed by recent cost data. A final part of the study is concerned with standards for determining the proper basis for trust fees.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

7. REMINGTON, J. W. [LINCOLN-ALLIANCE BANK AND TRUST COMPANY, ROCHESTER, N. Y.]

*¹The association of banking and fiduciary services*¹

The report of the Securities and Exchange Commission relative to trustees under indentures, made in 1936, raises anew the broader question of the association or dissociation of a banking and trust business. As a basis for dealing with this question, the study concerns itself with various aspects of the fiduciary practices in Canada and New Zealand, where dissociation has long been the rule. It also traces the rise of associated banking and fiduciary service in the United States and contrasts the forces that have fostered this development to those in other countries that have made for dissociated banking and fiduciary services.

See also IC(c) 10

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

8. SCULLY, C. ALLISON [BANK OF MANHATTAN COMPANY,
NEW YORK, N. Y.]

The purchase of common stocks as trust investments

The objectives of this study are, first, to set forth the responsibilities of trustees in the investment of trust funds in common stocks; second, to indicate the general principles that should govern such investment. In line with these objectives, it reviews: (a) recognized standards of performance of duty by trustees; (b) court cases bearing on trustees' powers to invest in common stocks; (c) the present applicability of precedents for common stock investment by trustees; (d) considerations governing the choice of stocks as a medium for trust investment; (e) tests of business judgment in determining whether stocks are suitable trust investments.

This study has been recently completed and published.¹

¹ The Macmillan Company, New York, 1937.

9. WARD, RODMAN [EQUITABLE TRUST COMPANY,
WILMINGTON, DEL.]

*Establishment and maintenance of a common trust fund*¹

Based on experience of various institutions with common trust funds, the purpose of this study is to ascertain the most effective methods for their establishment and administration. Special consideration is given to bookkeeping methods, to records required for Federal taxes, and to Federal Reserve regulations affecting their administration.

See also IC(c)4

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

10. STEPHENSON, GILBERT T. [GRADUATE SCHOOL OF
BANKING, AMERICAN INSTITUTE OF BANKING,
SECTION AMERICAN BANKERS ASSOCIATION]

Foreign systems of trust business

Confined primarily to the administrative and business side of the trust business in other countries, this study describes: (a) how estates of deceased persons are wound up and distributed under foreign legal systems; (b) how trust services are rendered that in this country are rendered by banks and trust companies under the name of corporate trust and agency services; (c) how trusts or substitutes for trusts in foreign countries are administered. The pattern of organization follows the type of legal system prevailing in foreign countries. Accordingly, the first part is devoted to systems of trust business in common law countries as England and the several Commonwealths of the British Empire. The second part covers trust systems in civil law countries, principally those of Central Europe and of Latin America, whose juridical systems are based on the Code Napoleon. The last part will deal with trust systems in other countries most of which have a combination of common law and civil law together with local customs and laws, including the Scandinavian countries, Japan, China, Turkey, Egypt, etc.

Materials for this study, which has been in process for several years, have been assembled by first hand investigations of the trust systems of England, Denmark, France, Germany, Ireland, Scotland, Norway and Sweden, and by extensive correspondence with trust experts of other countries. It is expected to be completed and published by 1938.

(d) CONSUMER AND OTHER FINANCE AGENCIES

1. REID, J. C. [FIRST NATIONAL BANK AND TRUST
COMPANY, NEW HAVEN, CONN.]

*Personal loan departments in banks*¹

The development of personal loan departments in banks and the operation problems that they must meet are treated in this study. Various aspects of the personal loan business considered are: (a) the characteristics of personal loans; (b) the characteristics of borrowers from personal loan departments; (c) the experience of banks with Federal Housing Administration modernization loans; (d) small loans under the Morris Plan system; (e) the organization of personal loan departments; (f) statutory regulations affecting personal loan operations.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

2. SNIDER, J. H. [GRADUATE SCHOOL OF BUSINESS
ADMINISTRATION, HARVARD UNIVERSITY]

The place and functions of credit unions

The increasing interest in credit unions and the growing propaganda for their extension justifies a critical examination of their role and function in contemporary financial organization. This inquiry therefore is concerned first with their development in Massachusetts, the state in which the credit union movement initially took hold and has grown most rapidly; and second, with their rise elsewhere in the United States, particularly the rise of credit unions under Federal charter. Such aggregate data as are available to indicate the growth and relative importance of credit unions as financial agencies are in

process of collection, as are also records of individual credit unions. The latter are analyzed with the objective of ascertaining the special conditions under which credit unions have thrived and also those which have contributed to failure.

Undertaken at the suggestion of the Pollak Foundation, which is providing financial assistance, this study is at present in a formative stage.

(c) INVESTMENT CREDIT AGENCIES

1. SECURITIES AND EXCHANGE COMMISSION, RESEARCH DIVISION

Characteristics of various types of investment trusts and companies (Investment Trust Study)

Under the terms of the legislative mandate contained in Section 30 of the Public Utility Holding Company Act of 1935, the Securities and Exchange Commission is directed to make an exhaustive study of the functions and activities of investment trusts and investment companies. In conformity with this mandate, a thorough investigation is being made of the distinguishing characteristics of various types of investment trusts and companies: (a) investment trusts and companies of the management type; (b) fixed or semi-fixed investment trusts; (c) special investment trusts; (d) special investment plans; (e) companies issuing guaranteed face amount certificates; (f) investment holding companies; (g) common or commingled trust funds; (h) defunct, liquidated and consolidated investment trusts and companies.

Materials for the investigation have been assembled by questionnaire surveys, field studies, and, for the larger

investment trusts, by means of conferences with executives at which preliminary reports were discussed in detail, and by public examinations. Information gathered differs for the various types of companies. For management type investment companies, it embraces data on: (a) history and organization; (b) corporate structures; (c) the issuance, sale and distribution of securities; (d) nature and scope of activities; (e) management and investment policies; (f) the acquisitions and control of subsidiaries and affiliates; (g) the influence exerted on companies in which investment companies are interested; (h) the influence exerted by interests affiliated with the managements on the policies of investment companies. In addition to general materials on history, organization, operating practices and policies of trusts of a fixed type, information is gathered concerning securities, indentures and agreements, the relationship of the trust with depositors and trustees, and method of fixing prices for trust shares. For special investment plans, supplementary data cover the activities of sponsors; components of certificate prices; deductions and charges to which investors are subject; and defaults and withdrawals by certificate holders. For companies issuing guaranteed face amount certificates, supplementary information similar to that for fixed type trusts is collected together with other special items, as the extent and kind of supervision to which these organizations are subject by state authorities. Materials assembled cover substantially 1927 through 1935.

Summaries of the assembled materials are being prepared for incorporation in the Commission's final reports. The important statistical summaries will cover (a) balance sheet data reflective of corporate structures; (b) income, expenses and dividends; (c) portfolios, showing

securities held by all investment companies and by different types of companies at specified dates; (d) portfolio turnover of various trusts and different types of companies for 1933-35; (e) sales and purchases of own securities; (f) number of shareholders; (g) remuneration of officers and directors; (h) net asset values and prices of investment company securities. Other summaries will be devoted to: (a) influences exerted by investment companies on enterprises in which they are interested; (b) influences exerted on investment companies themselves by interests affiliated with management; (c) benefits accruing from investment company operations to related parties; (d) the experience of investors in investment company securities.

This study is being conducted under the general supervision of Commissioner Robert E. Healy and under the immediate direction of Paul P. Gourrich, Director of the Research Division, aided by William E. Spratt, Jr., Chief of the Investment Trust Study, and David Schenker, Counsel to the Investment Trust Study. Submission of reports to Congress is expected by the middle of 1937.

Related studies in preparation as part of this program are mentioned elsewhere in the inventory. See below and also IIIA₂; IVC₁

2. SECURITIES AND EXCHANGE COMMISSION, RESEARCH DIVISION

British investment trusts (Investment Trust Study)

With a view to ascertaining the distinctive features of British investment trust organization and practices, and comparing them with those of American investment trusts, the Commission had prepared for its use a comprehensive survey of British trusts. Their capital struc-

tures, management systems, investment policies and investment performance records have been examined in detail and compared with similar features of American companies.

Prepared under the direction of Paul P. Gourrich in conjunction with the Commission's investigation of investment trusts authorized by the Public Utility Holding Company Act of 1935, the study will be included in the reports of the investigation, to be submitted to Congress in the middle of 1937.

3. SECURITIES AND EXCHANGE COMMISSION, RESEARCH DIVISION

Investment counsel and supervisory services (Investment Trust Study)

To provide a comprehensive background for its study of American investment trusts and investment companies, the Commission is conducting a brief investigation of investment counsel and supervisory services. The immediate purpose is to ascertain the various connections and relationships of investment counsel and supervisory services with investment companies. Materials have been assembled by means of a questionnaire survey on the organization of these services, solicitation of accounts, activities, transactions and investment policy, basis of compensation and affiliations with investment companies. In addition, information has been assembled on the type, number and size of accounts supervised; the custody of securities and funds of clients; and the connections and business experience of officers and directors.

In preparation under the direction of Paul P. Gourrich as part of the Commission's investment trust investigation authorized by the Public Utility Holding Company

Act of 1935. The findings will be included in the reports of the investigation, to be presented to Congress in the middle of 1937.

4. SEVERSON, H. L. [MUNICIPAL UNIVERSITY OF OMAHA]

*Investment banking in Chicago, 1833-1920*¹

Historical in approach, the purpose of this study is to sketch the development of financial institutions handling long term financing in Chicago from the pre-Civil War period to 1920. The specific purpose is to ascertain what changes took place in the types of security issued through Chicago institutions, in the kinds of institution dealing in long term investment securities, and in the methods used to distribute investment securities to the public. Materials have been assembled from a study of newspaper files and, wherever possible, from the records of investment institutions themselves.

Financial assistance for the conduct of this study has been provided by the Social Science Research Committee of the University of Chicago.

See also IC(a)11; ID8

¹ Ph.D. thesis, The University of Chicago.

(f) URBAN MORTGAGE CREDIT AGENCIES

I. FEDERAL HOUSING ADMINISTRATION, DIVISION OF ECONOMICS AND STATISTICS

European housing practice and policies

This investigation is concerned with a comparative analysis of techniques and practices in financing private and public housing projects in Austria, Czechoslovakia, Eng-

land, France, Germany, Holland, Norway, Sweden and Switzerland. The object is to determine the applicability of financial principles for housing finance accepted in foreign countries to conditions in the United States, taking into account differences in financial organization and in types of financial institution engaged in real estate financing.

Prepared under the joint direction of Ernest M. Fisher and Richard U. Ratcliff, the results have recently been published by the Division of Economics and Statistics.

2. NATIONAL BUREAU OF ECONOMIC RESEARCH

The organization of the real estate market (Real Estate Financing and Economic Stability)

In conjunction with the broad survey of real estate financing and economic stability, in process under the auspices of the National Bureau, the various classes of financial institutions that make real estate mortgage loans are given special study, viz., commercial banks, savings banks, building and loan associations, life insurance companies, Farm Credit Administration, Federal Housing Administration, Home Owners Loan Corporation, and the New York State Mortgage Commission. The purpose is to determine the role that these institutions perform in the real estate mortgage market and to determine their adequacy or shortcomings as real estate credit agencies. Consequently, analysis is made of: (a) the organization and procedures of each institution in the collection and distribution of funds; (b) the control and regulation to which each is subject in its operations; (c) the relationship of their activities to those of non-institutional mortgage lenders; (d) the economic effect

of the real estate lending activities of specialized mortgage institutions.

In preparation under the direction of David L. Wickens, an Associate of the National Bureau. This analysis of the organization of the real estate market is to be incorporated in the general study of real estate financing and economic stability which the National Bureau expects to publish in 1938.

For the main description of this project, see VC₂

3. OHIO STATE UNIVERSITY, BUREAU OF BUSINESS RESEARCH

Building and loan developments in Ohio and in the United States

This study seeks to picture changes since 1920 in the development of building and loan associations throughout the United States, and particularly in Ohio, with the ultimate objective of determining the influences that have produced changes and appraising their significance. It involves comparative investigation of trends in balance sheet data of building and loan associations and competing institutions in different states, and also of state laws and regulations affecting their operations. The relationship between building and loan associations and such recently created Federal institutions as the Federal Home Loan Banks and the Federal Savings and Loan Insurance Corporation will constitute a final phase of the project.

In preparation under the direction of Virgil Willett of the Economics Department, compilation of data is in process as a WPA project under the Bureau of Business Research. When completed, the results will be published as a Bureau monograph.

(g) AGRICULTURAL CREDIT AGENCIES

1. FARM CREDIT ADMINISTRATION, DIVISION OF FINANCE AND RESEARCH

Financial history of the joint stock land banks

This study is concerned with the financial and economic history of joint stock land banks organized from 1917 to 1923 and doing business in various sections of the country up to 1933, when provision was made for their liquidation under the Emergency Farm Mortgage Act of 1933. The analysis is to be divided into three main parts, the first a survey of the economic and legislative background of the banks, the second, a review of their organization, development and financial structures, and the third, an appraisal of their investment experience records and the general economic results of their operations. Special attention is being given to the types of operating problem confronting joint stock land banks from time to time with a view to drawing conclusions of general value.

In preparation under the direction of Carl H. Schwartz, Jr. as a project of the Economics Subdivision of the Division of Finance and Research of the Farm Credit Administration. At present it is not feasible to indicate a tentative date for completion or definite publication plans.

2. FEDERAL LAND BANK OF LOUISVILLE IN COOPERATION
WITH PURDUE UNIVERSITY

*An economic appraisal of the operation of national farm
loan associations in the Fourth Federal
Land Bank District*

Based on data available in the files of the Federal Land Bank of Louisville and compiled from personal interviews with national farm loan association officers, this inquiry is directed to the determination of factors affecting the success or failure of national farm loan associations. It entails a detailed inquiry into the aspects of farm loan association operation: (a) general factors affecting efficiency of operation; (b) methods of control and management; (c) effects of farmer participation; (d) relations with customers and supervisors; (e) costs of operation and of making and servicing loans; (f) efficiency of collection systems, extent of possessed property and disposition of possessed properties; (g) relation of financial status to opportunity for service; (h) relation of membership and community attitude to success; (i) the influence of personnel in success. Of 490 associations in Ohio, Indiana, Kentucky, and Tennessee approximately 75 are being intensively studied.

In preparation under the direction of E. L. Butz of the Federal Land Bank of Louisville as a joint project of the Federal Land Bank of Louisville and Purdue University. Completion is expected by summer 1937. No special publication of the findings is now planned.

(h) FEDERAL CREDIT AGENCIES

1. AMERICAN BANKERS ASSOCIATION, COMMITTEE ON BANKING STUDIES

Government lending agencies

The nature and extent of the competitive pressure exerted on incorporated state and national banks in consequence of the existence and operations of different government lending agencies is being investigated. As one phase, government lending agencies are being studied from the standpoint of the functions they perform as at present organized, together with such other functions as they may be authorized to perform under the law. As another phase, a questionnaire survey, with the cooperation of state bankers associations, is seeking to ascertain directly from bankers throughout the country the extent to which their local operations are affected by the activities of government lending agencies.

The findings are to be made available in pamphlet form in 1937.

See also IC(h)₃ and 4; IID₁₀ and 11

2. AMERICAN BANKERS ASSOCIATION, COMMITTEE ON BANKING STUDIES

The postal savings system of the United States

This comprehensive survey of the postal savings system of the United States was undertaken to ascertain the nature and extent of present day competition of postal savings with the savings business of chartered banks. As an essential introduction to the survey, the historical background of the establishment and development of

the postal savings system is traced in some detail, including an analysis of the Postal Savings Act of 1910 and the various amendments to it. The central part of the study, however, is devoted to a cross section consideration of the contemporary status of the system, and analyzes: (a) the geographical distribution of postal savings depositories in bank towns and non-bank towns, and of the disposition of postal savings funds; (b) the current distribution of savings banking facilities of chartered banks; (c) questionnaire returns, covering more than ten thousand banks, on the competition prevailing locally between themselves and postal savings depositories. An appendix presents: (a) graphs of postal savings developments in each state, 1911 through 1935; (b) tabulations of postal savings depositories by towns having both bank and postal savings facilities and towns having only postal savings depositories; (c) maps identifying all towns by the savings facilities available.

Prepared under the supervision of the Committee on Banking Studies, this survey was published in February 1937 by the American Bankers Association.

3. CALIFORNIA BANKERS ASSOCIATION, RESEARCH COMMITTEE

Government lending agencies in California

As part of a comprehensive research program under the auspices of the California Bankers Association, a study is planned dealing with government lending agencies operating in California and the competition felt by California state banks from their activities.

At present in an exploratory stage, this study is to be

made under the direction of J. Knight Allen of Stanford University.

See also IC(h) 1

4. BLACK, J. D., GALBRAITH, J. K., [HARVARD UNIVERSITY]
HARRIS, S. E.

The Farm Credit Administration

Devoted primarily to the structural features of the Farm Credit Administration, this study is divided into three major parts. One part is concerned with the relation of farm credit facilities and policies of the FCA to the cooperative movement. Another deals with the administrative problems of the FCA, and particularly those related to mortgage and production credit policies. A third has to do with the monetary and recovery aspects of FCA policies, such as the farm debt burden, sources of FCA funds put at the disposal of agriculture, competition between public and private farm credit agencies, cost of farm credit, the agricultural balance of payments, and the relationship of credit policies to farm prices, output and incomes.

The three parts are in preparation under J. D. Black, J. K. Galbraith and S. E. Harris respectively.

See also IIID10

D. INTERRELATIONSHIPS AMONG FINANCIAL INSTITUTIONS

I. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Effects of Federal Deposit Insurance Corporation policies on banks and other financial institutions

Insured banks compete with other types of financial institutions for the custody of savings and idle funds of individuals and business and public enterprises. In addition, they compete with other financial institutions for the privilege of making loans to private and public borrowers. Accordingly, every decision made by the Federal Deposit Insurance Corporation with respect to deposit insurance or the activities of insured banks affects in some way their competitive position with other financial institutions. In view of these circumstances, this project is to summarize in considerable detail the various aspects of competition between banks and other types of financial institution. The effects of various policies and regulations of the Corporation on competitive relationships, such as those dealing with maximum interest rates, are to be carefully traced.

In preparation under the direction of Donald S. Thompson as a Research Bureau project. Much of the background of this study is to be provided by a related study, Survey of Financial Institutions, described below.

It is therefore in a preliminary stage. When completed, the findings will be published in the *Annual Reports of the Corporation*.

2. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

The structure of financial organization and the relation of deposit insurance to different financial institutions

This investigation has been projected with the object of obtaining a more adequate fund of information bearing upon the competitive and functional conditions under which insured banking institutions operate. Necessarily broad in scope, it involves a careful survey of the various types of financial institution operating in the United States, and also of the functions they perform as reflected in the composition of their assets and liabilities. Institutions covered in the survey include commercial banks as ordinarily defined, mutual and other savings banks, building and loan associations, insurance companies, cooperative credit associations, credit unions, finance companies of various kinds, etc. Materials for the basis of analysis embrace: (a) studies of reports of state supervisors of banks and other financial institutions; (b) summaries of state laws authorizing the activities of different financial institutions; (c) statistical summaries of various types of assets and liabilities held by financial institutions other than insured banks; (d) statistical summaries of assets and liabilities of insured banks to isolate banks doing a savings banking business primarily from those doing a demand deposit business and those doing a business of mixed character. Special effort is being made to separate those financial functions which are specialized and therefore unique from those that are duplicative and

competitive. Comparisons of distinctive functions performed by different types of financial institution will be undertaken by states and regions, particularly as between insured banks and other institutions.

In preparation under the direction of Clark Warburton as a Research Division project. Findings will be published as available in the *Annual Reports* of the Corporation.

3. UNIVERSITY OF PITTSBURGH, BUREAU OF BUSINESS RESEARCH

The growth of Pittsburgh as a financial center

The various phases of the financial development of Pittsburgh are being traced from 1911 to 1936. Specifically the study deals in some detail with: (a) changes in the institutional organization of the Pittsburgh financial structure; (b) tendencies in bank assets and liabilities; (c) the growth and movement of clearings; (d) the turnover of bank credit as reflected in bank debits; (e) regional interest rates; (f) predominant types of bank loan. Some use is to be made of state and national data for comparative analysis, but the primary interest is with data that reflect local financial conditions.

In preparation under the direction of Wilbert G. Fritz, as one section of a larger Research Bureau project devoted to a comprehensive survey of the economic development of Pittsburgh. The entire survey is to be completed about June 1937.

4. ABBOT, C. C.

[HARVARD UNIVERSITY]

The New York bond market, 1920-1930

The object of this study is to describe the New York bond market as an economic institution, and to give some indication of the factors affecting its operation during 1920-30. The first part of the study is concerned with the features of the market as an institutional entity, and a general analysis of the forces conditioning its development as an institution. The main section of the study is concerned with the internal aspects of the market, including its activity, and the relations of bond market activity with other important economic elements, such as profits of industry, the construction of capital equipment, banking and credit changes. The treatment in this section is almost exclusively statistical and proceeds by periods selected on the basis of the internal features of the statistics used. The final part attempts to summarize the principal movements of the market in this period and to point out those movements which seem to have particular interest because of their relationships with other economic developments.

This study has been completed and is to be published in 1937.

See also IIA₁₃ and 16; IIB(c)₅; IIC₁ and 4

✓ 5. CHANDLER, L. V.

[PRINCETON UNIVERSITY]

Monopolistic competition in commercial banking

This study seeks to determine the economic effects of such monopolistic elements in banking as customer preference for particular banks, the fewness of banks in particular centers and areas, clearing association agreements.

Inquiry is directed especially to the effects of monopolistic elements on prices for banking services and to the consequent deviation of interest on customers' loans and time deposits from competitive levels. Their influence in retarding the elimination of excess banking capacity is also investigated. By way of illustrating the possible room for play of local monopolistic elements in American banking organization, the distribution of banks by size of town is being compiled.

The study will be published in a professional journal when completed, probably in 1937.

6. GUROCK, LOUIS [THE CONTINENTAL BANK AND TRUST COMPANY, NEW YORK, N. Y.]

*Brokers' loans and the stock market, 1926-1936*¹

The purposes of this study are: (a) to trace the origin of brokers' loans, 1926-36; (b) to describe in detail the mechanism of making and handling brokers' loans; (c) to assess the effectiveness of various regulations that have been applied to them; (d) to determine the safety of brokers' loans. Fluctuations in brokers' loans, stock prices and money rates are intensively studied.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

7. HOFFMAN, G. WRIGHT [UNIVERSITY OF PENNSYLVANIA]

Credit aspects of commodity speculation, 1924-1936

The effects of organized commodity speculation on the credit structure are investigated in this project. As presently planned, it is to treat the following phases of the problem: (a) changes in trade practices affecting organized commodity speculation over the last twelve years;

(b) the relation of financial practices in primary commodity markets to the volume of commercial loans by banks based on primary commodities; (c) the extent to which present methods of financing commodity trade result in private rather than bank extensions of credit; (d) seasonal and cyclical variations in production and marketing of staple commodities and their effects on demands for bank credit; (e) the extent of the shifting of bank deposits from individual speculative accounts to hedging accounts, and vice versa, accompanying broad swings in the market price of primary commodities.

This project is at present in a preliminary stage of preparation. It is expected that materials assembled in conjunction with the activities of the Commodity Exchange Administration of the United States Department of Agriculture will be extensively used in the analysis.

See also IIB(a) 1

8. PALYI, MELCHIOR [THE UNIVERSITY OF CHICAGO]

The financial structure of the Chicago area

This project is being developed in two integrated parts. The first is devoted to the structure of the organized credit market in the Chicago area, the second to the functioning of the Chicago credit market. The study of the structure of the organized credit market in Chicago is concerned with: (a) the size, comparative importance and development of Chicago as a financial center as reflected in available financial data; (b) the organization of the Chicago capital market, including on the one hand a study of savings institutions of various types, and on the other, an analysis of the Chicago security market and its relations with the national security market; (c) the money market and the characteristics of different types

of institutions associated with it; (d) unit banking in the Chicago area, related to unit banking in other parts of the country and the country as a whole; (e) concentration of financial facilities in the Chicago area, tracing the distinctive aspects of the concentration movement in this center. The second half of the project, dealing with the functioning of the Chicago credit market, is investigating: (a) the deposit and asset structure of banks in the Chicago area as compared with that of banks in other areas and for the country as a whole; (b) secular and cyclical changes in bank assets and liabilities; (c) tendencies in Chicago interest rates over the last two decades; (d) the development of mortgage financing in Chicago; (e) municipal credit and its financing by the local market; (f) the financial history of 100 to 200 industrial units and the influence of industrial finance on the functioning of Chicago financial institutions; (g) the impact of inflationary and deflationary developments on the functions and organization of the local financial system.

Originally launched in 1934, the first half of this project has already been completed. The second half is expected to be finished by June 1937. The Social Science Research Committee of the University of Chicago has provided financial assistance for the project. D. M. Dailey is assisting in the collection and analysis of materials.

See also IC(a) 11 and (e) 4

9. WALK, E. C.

*Loans of Federal agencies and their relation
to the capital market*¹

To ascertain the effects of Federal lending activities on the capital market since 1933, a detailed survey is made

of the functions, organization and loan operations of all Federal lending agencies. As a setting for the study, the organization and functions of the American capital market are analyzed, and its conspicuous defects, particularly as they manifested themselves in the years of acute depression, 1930-33, reviewed critically. Each Federal lending agency is then intensively studied in order to: (a) distinguish between emergency functions performed and those meeting deficiencies in capital market organization of a more fundamental sort; (b) evaluate its effectiveness in performing the functions for which it was established; (c) determine the repercussions from its operations felt by private financial agencies and institutions. A final section analyzes the effects of the activities of Federal lending agencies on: (a) the redistribution of the capital supply during the recovery; (b) the functional aspects of the banking mechanism; (c) the structural aspects of financial organization.

This study will be completed and published in 1937.

See also IC(h) 1 and 4

¹ Ph.D. thesis, University of Pennsylvania.

E. SOUNDNESS OF FINANCIAL INSTITUTIONS

I. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM,
DIVISION OF RESEARCH AND STATISTICS

*Closed bank study*¹

With a view to ascertaining more definitely the risks incurred by commercial banks in consequence of the different types of deposit held, this study is investigating intensively the movement of deposits of closed banks from 1928 to 1932. Data are being collected and analyzed with reference to: (a) movements in deposits of individuals and various types of business; (b) the sources of deposit withdrawals during the depression; (c) the asset adjustments made to meet withdrawals; (d) the distribution of deposits between personal and business accounts; (e) the kinds and average size of business loans and the proportion of loans kept on deposit with the lending banks; (f) the turnover of deposits in personal accounts. Data are also being gathered indicative of the types of business financed through customer loans, the typical size of loans, and policies of banks with respect to the proportion of loans kept on deposit. The extent to which various types of bank assets can actually be turned into cash to meet deposit withdrawals is one of the important questions to which this investigation is directed.

In preparation under the direction of Lauchlin Currie, Assistant Director of the Division of Research and Statistics. It is expected that the study will be completed by

late summer 1937, and published as a special report of the Board. The collection of data has been financed by WPA funds.

See also IE6

2. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Asset and liability characteristics of non-member insured banks

Supplementing an investigation of bank earnings and expenses, described below, this investigation is devoted to the statistical analysis of significant balance sheet ratios reflecting the distribution of assets of banks grouped according to size of bank, size of town, geographic area, economic region and character of deposits. At present in an exploratory stage, the aims and purposes parallel those of the earnings and expenses study, namely, to determine standards for detecting uneconomic banking units and to establish a better basis for appraising internal changes of the banking system.

In preparation under the direction of Donald S. Thompson as a Research Division project. Findings of the study, when completed, will be published in the *Annual Report* of the Corporation.

See also IE4

3. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Causes of bank failures, and the relation of banking to business fluctuations

As thorough a knowledge as possible of the causes of bank failures is important in the administration of the

Federal Deposit Insurance Corporation. As a working hypothesis it is assumed that bank failures are usually associated with: (1) business fluctuations and economic developments related thereto; and/or (2) bad internal management and misguided credit policies. Other studies of the Corporation deal with the internal management and credit policies of banks. The present study deals chiefly with the relation between bank failures and business fluctuations; and analyzes comprehensively causes of bank failures both nationally and regionally. The subjects are: (a) the urban and rural incidence of bank failures; (b) the volume and character of bank obligations for different classes of banks; (c) the character of bank assets; (d) losses and earnings trends of banks; (e) the capital structure of banks of different types; (f) the changing competitive elements in banking; (g) the relation of banking to legislation and supervisory regulation; (h) the relationship of banking conditions to production, local income and levels of property values; (i) changes in banking conditions growing out of balance of payments variations and the interregional movement of funds; (j) the effects of national monetary and banking policies.

Each subject enumerated is a major subject of investigation in itself. Study of all simultaneously is beyond the capacity of the Division of Research and Statistics of the Federal Deposit Insurance Corporation. At present investigation is therefore restricted largely to: (1) regional incidence of bank failures by type, class, size, location and competitive position of banks; (2) the relation between bank failures, fluctuations in volume of business, value of production and incomes in selected regions.

In preparation under the direction of Clark Warbur-

ton as a Research Division project, no date of completion is indicated.

See also IE11

4. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Operating experience of non-members insured banks as reflected in earnings and expense reports

Earning and expense data reported by all insured banks not members of the Federal Reserve System are being analyzed for 1935 and 1936, by size of bank, size of town, geographic area, economic region, in relation to profitability and according to the distribution of assets and liabilities. Appropriate statistical techniques, including frequency distribution analysis and correlation of net earnings with as many as forty different balance sheet and income statement ratios, are being used. The purpose is to determine norms of bank operation performance under different circumstances by size, character of business, and type of bank policy. In this way, it is expected that standards for detecting uneconomic banking units may be evolved and also that a better basis may be developed for judging the relative importance of competitive factors affecting the efficiency and earnings of banks.

In preparation under the direction of Donald S. Thompson, as a Research Division project. Results of the analysis will be published in the *Annual Reports* of the Corporation.

See also IE2

5. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Operating experience of non-member insured banks as reflected in examination reports

Examination reports are analyzed to ascertain the true capital position of non-member insured banks, and the distribution of loss, doubtful and substandard assets. Instituted first in 1934, these analyses are as yet experimental and every critical effort is being made to improve methods. Conceived as an aid to the development of criteria for determining the soundness of banks, frequency distributions are to be applied to the ratios reflecting the quality of assets and soundness of capital in order to establish typical standards for banks of different size classes, location, deposit composition, etc.

In preparation under the direction of Homer Jones as a Research Division project. Findings are published as available in the *Annual Reports* of the Corporation.

6. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Operating experience of suspended insured banks

Detailed studies are to be made of the operating experience of each suspended banking institution to determine: (a) what type of assets constitutes the greatest risk; (b) what banking practices are unsafe and unsound; (c) what economic circumstances have finally compelled suspension; (d) what liquidation procedure is most feasible. Deposit data are to be assembled by classes of depositor; type and size of deposits; and priorities of deposits. Assets are to be studied over a ten-year period by type

and behavior, and compared with those of other insured banks of similar size and approximately similar operating experience. The liquidation history of different classes of assets is also to be investigated. Accumulated examination reports will be an important source of data for the inquiry, but supplementary data will be collected directly from bank records.

In preparation under the direction of Florence Helm as a Research Division project. At present in an exploratory stage, the results will be published in the *Annual Reports* of the Corporation as they become available.

See also IE1

7. U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF
AGRICULTURAL ECONOMICS, DIVISION OF AGRICULTURAL
FINANCE

*Factors of banking success or failure in Arkansas,
Utah and Wisconsin*

The purposes of these studies are to determine: (1) the types of banking found in areas where various types of agriculture predominate, as, for example, cotton production, dairying, the grazing industry, and the production of crops upon irrigated lands; (2) differences in the operating policies and in the resulting financial condition of surviving and closed banks within each type of agricultural area; (3) changes in the financial condition and in the operating policies of banks during the depression. Special attention is directed to the composition of the deposits, loans and investments of banks, to the experiences of banks with various classes of deposits, loans and investments, and to policies of bank examiners in commenting upon the condition of banks. The earnings, expenses, losses, and changes in the capital structure of

banks are also studied. Data were obtained directly from the banks and from supervising authorities.

In preparation under the direction of F. L. Garlock of the Division of Agricultural Finance, and in cooperation with the respective state agricultural experiment stations and colleges that are actively collaborating in field work and in collating and analyzing data. Banking supervisors and bankers associations of the respective states are supporting and cooperating in the project. This project on country banking was begun in 1932 with the Arkansas study, the results of which have been separately published.¹ The Wisconsin study is expected to be published by the end of 1937; the Utah study should be completed by the middle of 1938.

For the other parts of this project see IC(b)5; IV A1; IVB1; IVC2; IVE5. See also IC(a)2; IE8, 10, 11 and 13; IVA3; IVE6 and 8.

¹ See *Bank Failures in Arkansas*, Bulletin No. 315, Agricultural Experiment Station, University of Arkansas, Fayetteville, Arkansas.

8. INDIANA STATE DEPARTMENT OF FINANCIAL INSTITUTIONS

Indiana bank failures

This study embraces a statistical and analytical review of the principal factors of weakness contributing to the failure of Indiana state and private banks and trust companies. A complete breakdown of examination reports of failed banks from 1926 to 1933 is being made in order to trace lending and investing policies and practices, and to isolate unsound elements in credit administration. The object is to develop practical suggestions for preventing the repeated emergence of these same elements in the future.

In preparation under the direction of Dwight B. Cragun as one unit of a projected history of Indiana banking institutions. Definite publication plans have not yet been made.

See also IE₂, 10, 11 and 13; IVA₃

9. INDIANA STATE DEPARTMENT OF FINANCIAL
INSTITUTIONS

*The moratorium and rehabilitation of
Indiana State banking*

With the object of evaluating the factors of success in overcoming the banking difficulties of 1929-33, an exhaustive study is being made of examination reports of all Indiana chartered banks from 1932 through 1937. Data on various asset items are being gathered and analyzed by type and size of bank.

In preparation under the direction of Dwight B. Cragun as one unit of a projected history of Indiana banking institutions. Early publication of the findings is not contemplated.

10. NORTH CAROLINA STATE BANKING DEPARTMENT IN
COOPERATION WITH THE RESEARCH COMMITTEE OF THE
NORTH CAROLINA BANKERS ASSOCIATION

*Loan and investment experience records of
North Carolina banks*

Originally prompted by the inadequate investment methods and policies of smaller banks, an analytical investigation is in process of the experience of North Carolina banks with all types of earnings assets over the last ten years. Types of lending and investing policies and experience are being noted and related to deposit compo-

sition, capital structures and reserves not included in capital structures. Data are being assembled from a detailed study of individual examination reports.

In preparation under the immediate direction of Hugh McLeod, Jr., State Bank Examiner, with the advisory assistance of J. B. Woosley of the School of Commerce, North Carolina State University. Completion is expected by late spring but no publication plans have yet been made. The results of this united investigation are expected to lead to a number of special studies subsequently to be undertaken by the State Banking Department.

See also IE7, 8, 11 and 13; IVA₃

11. NATIONAL BUREAU OF ECONOMIC RESEARCH

/ The agricultural cycle and commercial bank solvency

This study is concerned with principal economic forces affecting agriculture over the period of the latest major agricultural cycle from 1893 to 1933, and the consequences of the interplay of broader influences for the solvency of commercial banks. In tracing the development of agricultural banking and the farm credit structure, attention is paid to: (a) the growth of banking competition; (b) bank policies with respect to production and capital or mortgage loans; (c) loans to tenants and to owners; (d) the relationship of mortgage loans to property values; (e) the terms of agricultural loans and repayment policies; (f) the policies of country banks in investments. Special consideration is given, in addition, to distinctive factors affecting country bank operations under adverse conditions, as: (a) production, price and marketing hazards; (b) inadequate borrowing facilities; (c) the secular decline of agriculture and the dete-

rioration of agricultural finance; (d) special measures of financial relief to agriculture. Appraisal is made, finally, of the elements determining effective banking service for agriculture.

Originally undertaken as one of a series of studies for the Federal Reserve Committee on Branch, Chain and Group Banking in 1931, it has been completely revised and extended in scope under the auspices of the National Bureau of Economic Research. Prepared under the direction of David L. Wickens, an Associate of the National Bureau, and financed in its revision stages from funds given for the purpose by the Social Science Research Council. The study is expected to be published in 1937.

See also IE₃

12. UNIVERSITY OF MINNESOTA, SCHOOL OF BUSINESS ADMINISTRATION, FINANCIAL AND INVESTMENT REVIEW

Extent of reserves to absorb losses in bonds in state banks

With a view to determining the vulnerability of state banks to changes in the long term rate of interest, data have been collected showing the cushion that now exists for absorbing depreciation of the 'net risk' bond account among various classes of Minnesota state banks.

In preparation under the direction of Laurence R. Lunden, and published as completed in the *Financial and Investment Review*. The State Department of Banking has actively cooperated in the preparation of this study, one section of which has been published.

See also IVC₅₋₇; IVF₂

13. LOUISIANA BANKERS ASSOCIATION, COMMITTEE ON BANKING RESEARCH

Ratio analysis of failed banks in Louisiana

Financial statements of all state banks placed in liquidation during 1930-35 are being subjected to an intensive ratio analysis covering several years prior to failure. A similar analysis, for comparative purposes, is also being made of banks that did not fail. Special attention is being given to changes in the source of banking funds, including borrowed funds, and to changes in the investment of funds.

In preparation under the direction of M. H. Hornbeak of the University of Louisiana, the study is to be completed by spring 1937.

See also IE7, 8, 10 and 11

14. GARD, J. J. [UNITED STATES NATIONAL BANK,
PORTLAND, ORE.]

*The relation of capital to deposits in American banks*¹

The definition of the various funds that constitute the capital structure of a bank affords a point of departure for this study. The development of the American banking organization is then reviewed in order to trace: (a) the origin of some of our present day laws and traditions relative to bank capital; (b) the growth of banking since the enactment of the National Bank Act; (c) the changes in the assets and deposits as affecting the strain on the capital. Bank failures are treated only from the standpoint of their general causes and the extent of protection afforded by capital funds. The final part of the analysis examines the question whether the amount of

capital, surplus, undivided profits and capital reserves should be predicated on the volume of deposits and whether there should be an arbitrary fixed ratio between the two to ensure proper protection to the depositors.

See also IIIA6

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

15. SECRIST, HORACE [NORTHWESTERN UNIVERSITY]

Standards for detecting the imminence of bank failure

The objective in this analysis is to ascertain what standards, if any, can be evolved from a history of bank suspensions for detecting the imminence of bank failure by bank managements and supervisory authorities. As a working hypothesis, it is assumed that evidences of possible bank failure are detectable from ordinary balance sheet data, provided that accurate analysis of such data by groups of banks has been made over a period of time and standards for bank solvency thereby established. As a test of this hypothesis, balance sheet data from reports of the Comptroller of the Currency have been assembled and analyzed for 745 national banks that failed in 1925, 1929, 1930, 1931 and 1932, and also for 111 banks selected at random that did not fail during these years. For each bank included in the groups, antecedent financial history is being traced back to 1921 by means of balance sheet analysis methods. Several hypotheses concerning signs of strength or weakness are being tested by institutions that failed and by those that did not fail with a view to determining indices of declining strength and developing standards of financial strength confirmed by the experience records of the period under review.

PART II

Quantity and Behavior of Credit

TYPES OF PROJECT

The projects grouped in this area are of the type that are specifically seeking to: (a) measure the quantitative importance of various credit phenomena; (b) trace changes in credit phenomena through time by means of quantitative measures; (c) determine the relationships among credit phenomena and other economic elements as reflected by correlations of movements of quantitative measures.

PART II

Quantity and Behavior of Credit

A. *Currency and Bank Deposits*

- | | | |
|--|---|--|
| (a) Volume and factors affecting | { | Federal government policies
Treasury and Federal Reserve policies
Reserves and reserve ratios
Business and other demands
Needs for liquidity and solvency
Terms, as interest rates, priorities of deposits, withdrawal rights |
| (b) Behavior—total, geographical areas | { | Secular trends
Seasonal movements
Cyclical fluctuations
Turnover |
| (c) Interrelationships | { | Level and structure of prices
Interest rates
Volume of business, financial activity, balance of payments and the flow of funds |

B. *Loan and Investment Assets—Volume, Behavior, Interrelationships*

- (a) Commercial and mercantile
- (b) Consumer and personal finance
- (c) Investment
- (d) Urban mortgage
- (e) Agricultural { Mortgage
- { Other
- (f) Public

C. *Savings, Investment and Capital Formation*

- (a) Volume of money savings and investment
- (b) Production of durable goods
- (c) Depreciation and obsolescence of capital
- (d) Channels of capital formation

A. CURRENCY AND BANK DEPOSITS

1. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Factors affecting changes in deposits

Member bank, Federal Reserve bank, and Treasury statements are analyzed and integrated for the purpose of measuring factors affecting changes in the volume of bank deposits, such as gold movements, currency in circulation, Treasury balances, and loans and investments of banks.

This is a continuing Research Division project and the results appear in current analyses in the publications of the Board. A description of the method with a compilation of data will be published when they have been improved.

See also IIA7

2. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Interdistrict movement of funds

Information obtained from member bank, Federal Reserve bank, and Treasury statements and from records of the Gold Settlement Fund and of currency in circulation are analyzed currently for the purpose of segregating

gating factors responsible for or reflecting the interregional flow of funds in the United States. While no data are available concerning some of the more important factors, such as merchandise movements, travel, and investment purchases, the analysis throws some light on the nature of interregional movements of funds. Changes in bank reserves resulting from the interdistrict flow of funds is one aspect of the study; changes in bank deposits another.

This is a continuing study of current developments and its results appear from time to time in the publications of the Board and also in those of some of the Federal Reserve banks.

3. BOARD OF GOVERNORS OF THE FEDERAL RESERVE
SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Measurement of the volume of deposits of all banks

Statistics compiled by State and Federal banking authorities are being studied for the purpose of obtaining comprehensive and comparable series for a long period of demand deposits, adjusted for interbank balances and items in process of collection, and of time deposits.

In preparation as a special project of the Division of Research and Statistics. When available, results will be published in the Federal Reserve *Bulletin*.

See also IIA7

4. BOARD OF GOVERNORS OF THE FEDERAL RESERVE
SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Nature and causes of changes in currency in circulation

This study analyzes the statistics of money in circulation by denominations and in terms of seasonal, cyclical, and

other fluctuations. Special reports from Reserve and member banks and other special inquiries concerning the movements of currency in circulation may be used from time to time.

This is a continuing study of current developments as well as of past movements, and its results will appear from time to time in publications of the Board.

See also IIA6

5. BOARD OF GOVERNORS OF THE FEDERAL RESERVE
SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Velocity of deposits at reporting member banks

Statistics obtained weekly since September 1934 of debits to various types of deposit account at reporting member banks in leading cities are being studied for the purpose of determining the nature and significance of fluctuations in velocity of deposits. Comparisons are being made by size of bank, size of city, economic nature of region in which bank is located, and other characteristics. One aim is to improve the current statistics of bank debits and relate them more specifically to deposits.

In preparation as a special study of the Division of Research and Statistics, the results are expected to be published in the *Federal Reserve Bulletin*.

See also IIA9 and 15; VA7

6. U. S. DEPARTMENT OF COMMERCE, BUREAU OF FOREIGN
AND DOMESTIC COMMERCE, FINANCE DIVISION

International currency movements, 1919-1936

Originally undertaken for the purpose of obtaining balance-of-payments data, this inquiry will reveal also the monetary significance of international currency move-

ments during the post-War period. The study deals with the quantitative importance of currency movements in the balance of payments of the United States, their relationship to other balance-of-payments items, and seasonal influences affecting their volume.

In preparation under the direction of August Maffry as a Finance Division project. Although completion of the study is expected in 1937, no definite arrangements for publication have been made.

See also IA4

7. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Quantitative aspects of insured bank deposits

Under this project, the reports from more than 14,000 insured banks for the last two years and of 3,400 offices of insured multiple office banks for May 13, 1936, showing the number and classification of accounts of less than and more than \$5,000, are being intensively analyzed in order to provide more accurate statistical information on insured bank deposits. The important items to which investigation is devoted include: (1) insurance coverage in various states by class of bank, type of account, and class of depositor; (2) the shifting of deposits from individual communities by class of bank, type of deposit and class of depositor; (3) changes in total and insured deposits resulting from seasonal factors, long time trends, and special influences; (4) changes in deposits of suspended banks prior to suspension; (5) concentration of risk to the Corporation in banks of various sizes and types; (6) the amount of protection afforded depositors by deposit insurance in suspended banks.

In preparation under the direction of Florence Helm

as a Research Division project. Some of the results of the project were published by the Corporation in a pamphlet entitled 'Insurance of Deposits' (November 30, 1936); some of the results will be published in the *Annual Report* of the Corporation for the year ending December 31, 1936; and some will be made available in subsequent publications and articles.

See also IIA1 and 3

8. U. S. TREASURY, DIVISION OF RESEARCH AND STATISTICS

*Statistics of capital movements between the
United States and foreign countries*

Statistics of international capital transactions between the United States and foreign countries, and related foreign exchange market data, are collected by the Treasury Department, through the Federal Reserve banks, from persons engaged in such transactions having their principal place of business in the United States. Data are reported on a weekly basis by all banks, bankers, brokers and dealers whose aggregate transactions exceed \$5,000 in any seven-day reporting period. Bulletins presenting these statistics are now being issued every three months, divided into the following sections: Section I, containing a general summary of reported capital movement and foreign exchange market data; Sections II-IV, covering foreign assets and liabilities reported by banking institutions and securities dealers; Sections V-VII, covering security transactions between the United States and foreign countries reported by banking institutions and securities dealers; Sections VIII-X, embracing data of foreign exchange dealings, 'spot' and 'forward' as reported by banks and bankers in the United States. The last section,

Section XI, includes a graphic analysis of significant summary data tabulated under Section I.

These statistics are available for all weeks since the beginning of 1935. The first published bulletin, issued in November 1936, covered the period, January 1935 through September 1936; the second, issued in April 1937, covered the last three months of 1936 and summarized the data for the entire period, January 1935 through December 1936. Additional reports are to be issued by the Treasury Department every three months. They are prepared under the direction of George C. Haas, Director of the Division of Research and Statistics of the Treasury Department.

See also IA1

9. BROOKLYN COLLEGE, BUREAU OF ECONOMIC RESEARCH

Deposit activity in mutual savings banks

Savings deposits and withdrawals of mutual savings banks from 1900 to 1935 in Connecticut, Massachusetts, New Jersey and New York, as reported by state banking supervisors, are being intensively analyzed. It is expected that the investigation will throw new light upon the behavior of savings deposits in industrial states in various phases of the business cycle, and afford a more adequate quantitative basis for evaluating savers' habits and the extent to which consumer balances of individuals with low incomes are deposited in savings accounts. Calculations of the turnover of savings deposits of mutual savings banks are being made by years for each state, although the inclusion of Christmas Club data in the reported figures for New Jersey and New York render turnover estimates for these states more difficult and less reliable than those for Connecticut and Massachusetts.

In preparation under the direction of W. H. Steiner as a Bureau project, it is to be completed in spring 1937.

See also IIA₅ and 15; VA₇

10. NATIONAL BUREAU OF ECONOMIC RESEARCH

Analysis of cyclical behavior (Business Cycles, Volume II, Part 2)

In connection with the National Bureau's investigation of business cycles, analysis is being made of the cyclical behavior of such credit and financial data as money in circulation, bank deposits, security dealings, savings and investment, business profits and losses, the disbursement of incomes to individuals and related series. The cyclical patterns of these series are being carefully compared and related in turn to other series reflective of the productive and distributive processes.

In preparation under the direction of Wesley C. Mitchell, with the assistance of Arthur F. Burns. Publication plans for an investigation of the scope of the National Bureau's business cycle project must remain somewhat indefinite, but it is expected that this part of the study will be ready for publication by the end of 1938.

See also IIC₄

11. OHIO STATE UNIVERSITY, BUREAU OF BUSINESS RESEARCH

Member bank borrowings and money rates

The role of the rediscount rate in the money market and the factors influencing the volume of member bank borrowings is the subject of this study. Investigation is being directed to the relationships during 1922-36 among

member bank borrowing, open market money rates and rediscount rates for each of the twelve Federal Reserve districts. In addition shifts in member bank portfolios, so far as they may be related to changes in the above items, are being traced.

In preparation by Robert C. Turner under the direction of Charles A. Dice, Department of Business Organization.

12. AMERICAN BANKERS ASSOCIATION, BANK MANAGEMENT COMMISSION

Interest rates paid on deposits

To determine tendencies in interest rates throughout the country on various classes of deposits, a questionnaire survey covering 586 clearing houses and about 6,050 banks has been made. Summary data for 1933-36 cover the number of clearing houses paying interest at different rates on the several classes of interest-bearing deposits and also changes in interest rates paid by banks on deposits since 1935 by states. Detailed data from individual clearing houses are classified by those reporting that member banks paid: (a) a single, uniform rate of interest on each class of deposits; (b) a single rate for each deposit class but that different rates were paid by different banks; (c) a scale of rates based on the amount of deposit or the length of time the deposit is left with the bank. Other data compare interest rates, 1935-36, for clearing houses that govern maximum interest rates by rule and those that apply no rules as to interest rates.

This survey has been published by the Bank Management Commission, American Bankers Association.¹

¹ Bulletin No. 71, December 1936.

13. MOODY'S INVESTORS SERVICE

Banking conditions and interest rates

This investigation is directed to the statistical relationships in the past between changes in banking data and in interest rates, short and long term. National bank call reports are being analyzed throughout the life of the system in order to compile long period series that reflect changes in banking conditions. Changes in loan and investment items and in deposit items are to be related to changes in money and long term interest rates. In this way, it is expected to throw new historical light on the influence on interest rates of variations in banking conditions. Time lags, which may be involved before the impact of sharp changes in banking data are reflected in the long term capital market, will be subject to special study.

In preparation under the direction of Donald B. Woodward as a firm project, it will be made available, at least in summary form, in the regular publications of Moody's Investors Service.

See also ID₄; IIA₁₆; IIB(d)₅; IIC₁ and 4

14. BROWN, W. A., JR.,

[BROWN UNIVERSITY]

SMIT, C. J., SILVERMAN, A. G.

The international gold standard reexamined

A wealth of quantitative materials has been assembled in conjunction with this comprehensive study. For the pre-War period, they extend as far back as reliable sources cover: (a) asset and deposit data for leading central banks, English joint stock banks and New York City banks; (b) discount and open market interest rates of leading international markets; (c) the London price

of gold bullion; (d) exchange rates between principal centers and between London and the chief debtor countries; (e) gold movements; (f) foreign capital issues on the London market.

Bank of England data for the pre-War period have been carried back on a weekly and monthly basis to 1845, and are assembled on a semi-annual basis for the period 1778-1843. Those of the Bank of France and the Reichsbank, monthly, begin with 1882. Fairly complete series covering other items have been assembled for the period 1882-1911.

These and related data for the post-War period have been intensively analyzed in terms of their seasonal and cyclical movements, using methods developed by the National Bureau of Economic Research, with a view to international comparisons. In addition, special analysis has been made of movements of foreign exchange, interest differentials between markets and gold movements in order to appraise the significance of international arbitrage and short term capital movements. Interrelationships among international financial data, such as exchange rates, interest rates, and capital movements, and trade currents, industrial production of important countries, and domestic and international prices, are also covered in the statistical investigation.

The statistical analysis has been prepared largely under the direction of A. G. Silverman, and is to be published with the main study, tentatively scheduled for completion by late fall 1937.

For the main description of this study, see IA3

15. MARGET, A. W. [UNIVERSITY OF MINNESOTA]

The velocity of circulation of money

In connection with a theoretical study of the velocity of circulation of money, the results of statistical investigations of circulation velocities are being surveyed to date, and their significance evaluated critically. It is also planned to present a program of further statistical investigation in the light of the theoretical analysis of velocity concepts developed in the study.

For the main description of this project, see VA7; see also IIA5 and 9

16. SKINNER, R. DANA [PELL, KIP AND SKINNER,
NEW YORK, N. Y.]

*Monetary and banking factors in relation to
interest rates and prices*

This project seeks to develop measures of monetary and banking phenomena that may logically be associated with cyclical and other movements of bond prices, short term interest rates, common stock prices and the general price level. Among the measures devised to compare with bond prices are such ratios as total member bank deposits to total loans and government securities held by member banks, and member bank reserve deposits to total Federal Reserve credit. A second group of measures, sensitive to changes in short term interest rates, are the ratios of total loans to total bank deposits of member banks and Federal Reserve bills held to Federal Reserve deposits plus notes. A third group of measures that together reflect conditions underlying movements in common stock prices include: (a) bank debits to all

other loans of member banks; (b) bank debits to the general price level; (c) 'net' deposits (total deposits minus loans) of member banks to total bank loans; (d) circulating currency to the monetary gold stock. Measures associated with the movement of the general price level, finally, include the ratios of bank debits (outside New York) to total member bank loans, and total deposits of all banks to monetary gold stock.

Initial publication of these measures is to be made in a volume entitled *Seven Kinds of Inflation*, to be released in the late spring 1937.¹

See also ID4; IIA13; IIB(d)5; IIC1 and 4

¹ McGraw-Hill, New York, 1937.

17. TORGERSON, H. W. [NORTHWESTERN UNIVERSITY]

*The behavior of time deposits of commercial banks*¹

The special banking problems that the experience of the recent depression shows may arise from the combination in commercial banks of a saving or time deposit business with a demand or checking deposit business are the subject of this study. As a background against which these problems may be considered, analysis is first being made of: (a) the volume and growth of time deposits in the United States up to 1929; (b) the investment policies that have been followed by various institutions receiving time deposits, and the various factors that apparently have influenced investment policies; (c) the features of time deposit contracts that have commonly been used by different classes of banks and other types of savings institution, and legislative requirements governing time deposit contracts. The second main part of the study deals with the behavior of time deposits in 1929-33, covering in summary the changes in time deposits for all com-

mercial banks in the United States and in detail the experience of Chicago banks. The experience of other types of financial institution and of commercial banks in states with special contracts is also being traced. A final section is devoted to suggested remedies for problems growing out of a merged time and demand deposit business.

Completion of this project is not expected before the middle of 1938.

¹ Ph.D. thesis, Northwestern University.

B. LOAN AND INVESTMENT ASSETS

(a) COMMERCIAL AND MERCANTILE ASSETS

1. HUNT, PEARSON

[YALE UNIVERSITY]

*Recent changes in the volume of self-liquidating loans of commercial banks*¹

Published figures purporting to indicate the volume of self-liquidating bank loans are being critically examined with the object of evaluating their adequacy and of measuring the secular and cyclical changes they reflect. Supplementing this statistical survey, analysis is being made of: (a) the causes of changes in self-liquidating bank loans, as for example, alterations in business financial practices, the rise of competing loan agencies, depression, etc; (b) methods by which individual commercial banks have adapted their operations to changes in demands for so-called commercial loans; (c) repercussions of changes in credit demands directly associated with self-liquidating business transactions on the operations and functions of the Federal Reserve System.

The probable date of completion is uncertain.

See also ID7

¹ Ph.D. thesis, Harvard Graduate School of Business Administration.

(b) CONSUMER AND PERSONAL FINANCE ASSETS

1. RUSSELL SAGE FOUNDATION, DEPARTMENT OF REMEDIAL LOANS

Economic characteristics of consumer debt

In conjunction with a comprehensive program of investigation within the field of consumer credit, an intensive study is in process of the economic characteristics of consumer debt, defined as the sum of all obligations of persons for loans incurred in their capacity as consumers. The purpose is to apply quantitative measures to various types of consumer debt in order to determine their current quantitative importance and their secular, seasonal and cyclical changes in relation to those of other economic series reflecting production and consumption activity. The consumer debt time series being assembled and analyzed fall into five classes. The first includes short term consumer loans by specialized lending agencies, as for example: (a) credit unions, (b) small loan companies, (c) industrial banks, (d) personal loan departments of banks, (e) pawnbrokers, (f) loan sharks, (g) employee and philanthropic funds. The second covers mortgage loans on homes by: (a) building and loan associations, (b) insurance companies, (c) banks, (d) other lenders. The remaining classes of consumer debt pertinent to the study include miscellaneous loans with a consumer contract extended by various agencies, mainly banks; instalment credit advanced through the medium of finance companies; and service credit extended by doctors, dentists, hospitals, undertakers and landlords. So far as practicable, year end data, recorded and estimated, are being collected from 1910 to 1936 for all types of lender. The effort is being made to collect monthly debit

balances from 1929 to 1936 for typical institutions and lenders for as many classes of consumer debt as possible.

In preparation under the immediate direction of Rolf Nugent, Director of the Department of Remedial Loans. Originally launched in 1934 in cooperation with the Consumers' Advisory Board of the National Recovery Administration, findings are not expected to be available for publication before the end of 1937.

For other parts of this project see IIID6 and 7

(c) INVESTMENT ASSETS

I. U. S. DEPARTMENT OF COMMERCE, BUREAU OF FOREIGN AND DOMESTIC COMMERCE, FINANCE DIVISION

Foreign investments in the United States

A comprehensive survey of foreign investments in the United States at this time serves several specific purposes. In the first place, it affords more adequate data with which to estimate such balance-of-payments items as interest and dividend paid by Americans to foreigners. Second, it affords a check against reported changes in foreign investments in the United States. Third, it gives a more satisfactory measure of the magnitude of foreign investments in the United States than has heretofore been available for reference use in evaluating the financial significance of changes in American investments of foreigners from time to time. When completed, this survey will show the present status of foreign investments in the United States, classified by appropriate investment categories according to the foreign country in which nominal ownership resides and according to the American industry in which the investment is held. Changes

since 1929 in American investments of foreigners will also be shown.

In preparation under the direction of Amos E. Taylor as a Finance Division project. The final results are expected to be published as a bulletin of the Bureau of Foreign and Domestic Commerce before June 1937.¹

See also IIB(c)3

¹ Preliminary results as of the end of 1935 were published as Special Circular No. 417 of the Finance Division.

2. SECURITIES AND EXCHANGE COMMISSION, RESEARCH DIVISION

Census of American listed corporations

The purpose of this investigation is to analyze registration statements filed with the Securities and Exchange Commission under the Securities and Exchange Act of 1934 by corporations fully registered with the Securities and Exchange Commission under that Act at the end of 1935. Most of the financial information included in the statements pertains to the calendar year 1934. Besides a general survey based on data available for all listed corporations for this specific year, summary surveys are being made for each industry group. As tentatively planned, these industry surveys will contain: (a) general information as to each registrant; (b) a tabulation of corporate interrelationships; (c) security issues included in consolidated balance sheets; (d) ownership of registered issues by registrants and their affiliates; (e) the market value of registered issues; (f) combined balance sheet data, including principal asset items as a percentage of total assets and principal liability items as a percentage of total liabilities; (g) combined profit and loss state-

ments, with principal profit and loss items expressed as a percentage of total sales; (h) selected assets and income relationships (ratio analysis); (i) a classification of selected expenses.

A similar survey of the first annual reports filed with the Commission by the same registrants is being made, containing information pertaining to the calendar year 1935.

In preparation under the direction of Paul P. Gourrich and James C. Buckley as a WPA project sponsored by the Securities and Exchange Commission. The information obtained for the two periods will not be published before summer 1937.

3. BROOKINGS INSTITUTION

America's stake in foreign investments

This is a study of the growth and present status of foreign investments in the United States and of American investments abroad. Both direct and portfolio assets and liabilities are included. The direct investments are considered in terms of the large industries represented. The analysis and estimates of the foreign portfolio of American securities before, during, and since the War, are based on a detailed study of data from various sources, including the current investigation by the Department of Commerce of foreign investments in the United States. The American portfolio of foreign loans has been analyzed loan by loan in terms of the amounts originally taken in the United States, prices paid and interest rates, annual repayments of principal, the amounts now outstanding, and the present situation with respect to payments on principal and interest.

In preparation by Cleona Lewis, publication is scheduled for summer 1937.

See also IIB(c)1; IVC8

4. COWLES COMMISSION FOR RESEARCH IN ECONOMICS

Common stock prices, 1871-1936

As part of a long range research program, the Cowles Commission has a comprehensive investigation of the movement of stock prices currently in process. The objectives are three-fold: first, to compile more adequate and inclusive indexes of stock prices and related series covering the entire period 1871-1936 than have been available heretofore; second, to identify and evaluate the different factors affecting stock prices throughout the period; third, to appraise in the light of statistical evidence various theories of stock market action. New common stock indexes, compiled by 68 industry groups, are in preparation: [1] monthly indexes of (a) stock prices, (b) stock prices adjusted for reinvestment of dividends, (c) dividend payments, (d) yields; and [2] annual indexes of (a) earnings, (b) earnings-price ratios. These indexes, adjusted for all changes in capital structures, include all stocks for which transactions on the New York Stock Exchange were reported during 1871-1917; for subsequent years they are based on Standard Statistics indexes which cover over 90 per cent of the total value of common stocks listed on the New York Stock Exchange, as well as other leading issues. Using the assembled common stock indexes as material for further study, intensive analysis is being made of: (a) differences in stock yields for various industry groups; (b) trends in stock prices and the economic tendencies and influences with which they may be associated; (c) the relative variability, sea-

sonal and cyclical, of stock prices of different industry groups; (d) the validity of various theories of stock price behavior.

In preparation under the immediate direction of Alfred Cowles, 3rd, the results are to be published in two monographs. The first, which will present the several indexes compiled for the project, is expected to be issued in 1937 under the title, *Common Stock Indexes, 1871-1936*.

See also IIC₁

5. NATIONAL BUREAU OF ECONOMIC RESEARCH

Some theoretical problems suggested by the movement of interest rates, bond yields and stock prices in the United States since 1856

Fundamentally a statistical and theoretical study of the actual behavior of interest rates in the market place, virtually all problems treated have to do with the role and relationships of interest rates and security prices in the cyclical movements of business activity. The questions to which it is directed may be briefly stated as follows: What is a rate of interest? What are the mathematical characteristics of interest rates? How and why do rates vary among themselves at the same time, and how and why do they vary from time to time? How and with what regularity are interest rates related to other economic phenomena? What are the most important factors that influence them? To what extent and under what circumstances do the movements of rates seem consistent with rational human conduct, and to what extent and under what circumstances is explanation hindered rather than helped by assumptions of rigid rationality?

The development of answers to these questions proceeds along the following pattern: (a) analysis of the concept of long term interest rates and their financial and mathematical implications; (b) a consideration of the theoretical and practical difficulties of comparing long term interest rates as between different dates; (c) investigation of movements of bond yields by different grades of bonds and an analysis of bias or 'drift' of bond yield indexes growing out of the changing qualities of the bonds that they cover; (d) intensive examination of the problem of bias or 'drift' in bond yield indexes and in indexes of prices of common stocks; (e) comparisons of railroad bond yields and stock prices; (f) analysis of the relationship between bond yields and commodity prices; (g) a study of interrelationships of movement between short term interest rates and long term rates as reflected in railroad bond yields; (h) an extensive survey of the relationships among the cyclical movements of interest rates, security prices and various indexes reflecting business activity over seventy-eight years. Appendices deal with technical problems involved in (a) statistical measures of price changes; (b) methods of weighting indexes of bond yields to avoid bias or 'drift' resulting from the changing quality of bonds; (c) interpreting gold yields of bonds payable as to principal and interest in currency.

Under the direction of Frederick R. Macaulay of the National Bureau's research staff, this investigation has been in process for several years. The book is in press.

See also ID4; IIA13 and 16; IIC4

6. MOODY'S INVESTORS SERVICE

Rates of income capitalization

With the objective of developing more satisfactory criteria for judging the degree of overvaluation or undervaluation of prices of equity securities in relationship to bond prices, the relative rates of income capitalization in New York and London for the War and post-War periods and so far as practicable for the pre-War period are to be examined intensively. As a preparatory step, compilation of a comparable series of data on representative equities and bonds in the two markets is in process. Careful comparative study of the behavior of rates of income capitalization for high grade equities and bonds will be made when the data have been assembled to determine whether typical patterns have obtained in the past under boom and depression conditions.

In preparation under the direction of Donald B. Woodward as a firm project, the results will be reported in the regular publications of Moody's Investors Service.

7. STANDARD STATISTICS COMPANY

Corporation profits since 1900

Plans for this project call for a thoroughgoing study of corporation profits in the United States since the beginning of the present century to arrive at an accurate measurement of their size and cyclical swings. How profits fluctuate and trends develop in different industries are to be studied and the main causes of cyclical variation and trend movement are to be identified. Particular attention is to be paid to the disappearance of important sums of capital accompanying cyclical variation, and to the possible reasons for such disappearance.

In preparation under the direction of Laurence H. Sloan, editor-in-chief, as a firm project. Because of the scope of the investigation and the difficulty of assembling materials for years prior to 1920, it is not possible to indicate a date for completion.

See also IVC₉

(d) URBAN MORTGAGE ASSETS

1. FEDERAL HOUSING ADMINISTRATION, DIVISION OF ECONOMICS AND STATISTICS

Technique for real estate analysis

In order to further the assembly and analysis of data reflective of trends in real estate transfers, mortgage financing, building activity, subdivision growth, and related factors characterizing local area real estate developments, this technique for conducting intensive local real estate investigations has been prepared. By means of this technique it is contemplated that detailed county surveys will be made, based on public files of deeds and mortgages recorded, building permits issued, lots recorded, and tax assessment records, together with appropriate summary analyses of the surveyed data. The technique as drafted calls for a detailed analysis of some data for from fifteen to twenty years, and other data for a longer period. It is hoped that WPA projects of this type will be launched under local sponsorship in a number of cities.

In the development of the technique and the planning of local real estate survey projects, the Division of Economics and Statistics is cooperating with the Coordinating Committee of the Work Progress Administration

and the Central Statistical Board. L. Durward Badgley is in charge of this project for the Division.

See also IIB(d)3

2. NATIONAL BUREAU OF ECONOMIC RESEARCH

Economic position of urban residential real estate (Real Estate Financing and Economic Stability)

In order to make generally available the mass of materials pertaining to urban residential real estate assembled by the Financial Survey of Urban Housing of the Bureau of Foreign and Domestic Commerce in 1934 and by other governmental agencies currently and in the past, a source book is in preparation presenting basic data on this part of the real estate field. Present plans call for the organization of the data along the following lines. An initial section will be devoted to the value classification and distribution of urban real estate, covering specifically: (a) measures of the aggregate importance of real estate for selected dates and the distribution of ownership; (b) the dollar value and geographical distribution of the principal classes of real estate, 1930-36; (c) the trend of real estate values as reflected in the value of mortgaged properties for selected cities and in construction costs; the distribution of urban residential property by type of structure, materials, age and value groups. A second section will deal with rents on urban residential property, covering such items for recent years as: (a) the aggregate annual and monthly rent bill; (b) the average rental for principal types of property; (c) the trend of rents in selected cities; (d) differences between gross and net rentals by type of facility and property; (e) delinquency in rent payments by rent groups for certain years. A third section will concern itself with the

relation of rents to real estate values, and a fourth with the volume of residential construction from 1919 through 1936. Another section is to present data on residential rents in relation to family income, while the final part is to be devoted to financial elements affecting the volume of mortgage debt, as the ratio of debt to property value, the terms and sources of mortgage credit, and distinctive risk elements affecting mortgage loans.

In preparation under the direction of David L. Wickens, an Associate of the National Bureau. Publication of this source book is planned in summer 1937.

For a supplementary description see IVE8; see also IVE6; VC₂

3. OHIO STATE UNIVERSITY, BUREAU OF BUSINESS RESEARCH

Real estate finance survey, Franklin County, Ohio

Based on accessible public records of real estate transfers, mortgages and foreclosures, analysis is being made of trends in real estate financing in Franklin County, Ohio, for the last two decades. Data are being assembled indicative of: (a) the volume, type and location of new building activity; (b) the volume of real estate transfers; (c) the conversion of agricultural land into real estate subdivisions and the absorption of new subdivision lots into active use; (d) the volume, type and terms of mortgages; (e) volume of real estate foreclosures and distress sales.

In preparation under the direction of Lester S. Kellogg as a Research Bureau project, and financed with WPA funds. Tentatively, completion of the investigation is expected by early fall 1937.

See also IIB(d)1

(c) AGRICULTURAL MORTGAGE AND OTHER ASSETS

I. U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF AGRICULTURAL ECONOMICS, IN COOPERATION WITH THE WORKS PROGRESS ADMINISTRATION

Farm mortgages, land values, land transfers and farm taxes

Nationwide in scope, this project is undertaking to assemble more reliable data on farm mortgage debt, land values and transfers and farm taxes. Three types of data are being gathered in about 900 agricultural counties. The first type covers farm mortgages filed and released as reported in county records from 1917 through 1935, with a view to ascertaining the types of lenders, rates of interest charged, average amounts loaned per acre by each type of lender, and the disposition of the mortgages. The data compiled for each mortgage cover: (a) information as to the borrower and lender; (b) the amount and terms of the mortgage, including the date of execution, interest rate, method of payment, maturity date and extensions; (c) a description of the mortgaged property. The second type of data covers farm real estate transfers over the period 1900 through 1935 and is intended to disclose the average prices of farm real estate and the volume transferred by various methods. The third relates to farm real estate taxes for a representative sample of farms in each county studied to serve as a basis for indicating trends in farm taxes, and covers the years 1890 through 1913, data for subsequent years already being available.

In preparation under the general direction of Donald Jackson as a National Research Project of the WPA. Various state agricultural experiment stations have co-

operated in the field work which is now practically completed. Final tabulations of data are expected to be completed by June 1937. The results of the national survey will be published by the Works Progress Administration and the Bureau of Agricultural Economics. A number of the state agricultural experiment stations cooperating in the project are expecting to issue bulletins containing material assembled in local surveys.

See also VC₂

2. NATIONAL BUREAU OF ECONOMIC RESEARCH

Agricultural real estate and business cycles

Concerned with the relation of farm real estate and its financing to major economic changes affecting rural areas, this study subsumes a variety of data pertinent to the quantity and movement of farm mortgage credit. Statistics are presented on: (a) the volume and value of different classes of property; (b) land secured debt and the ratio of debt service to farm income for different classes of farms and regions; (c) the terms, as interest rates and amortization of farm mortgages; (d) the distribution of the ownership of farm mortgage obligations among different types of financial institutions.

In preparation as part of the National Bureau's research program devoted to real estate financing and economic stability under the direction of David L. Wickens, an Associate of the National Bureau. Financed by funds especially contributed by the Social Science Research Council, the results of the study are expected to be published as a separate monograph by the National Bureau.

See also VC₂

(f) PUBLIC SECURITIES

I. SOCIAL SECURITY BOARD, BUREAU OF RESEARCH AND STATISTICS

Financial reserves for old age benefits under the Social Security Act in relation to the Federal debt

A long range research project has been started to study the probable nature of the influence of reserves for old age and unemployment benefit payments. Preliminary plans for this study include a description and analysis of the Federal debt: (1) so far as material is available, and in collaboration with other agencies, a study of the distribution and ownership of the Federal debt; (2) changes in the nature and ownership of the Federal debt during the last five years; (3) probable future changes growing out of gradual, partial or complete retirement of the present debt as funds accumulate in special Social Security Accounts.

A second part of the project is a study of the possible effects of accumulations of special funds under the Social Security Act on financial markets and security and commodity prices. A third part is to be directed to questions concerning the use of debt policy and credit operations for the sake of increasing economic stability. Materials available at the Treasury, the Federal Reserve Board and member banks will be used, with few new data.

At present in an exploratory stage, in preparation under the direction of Eleanor L. Dulles as a Bureau of Research and Statistics project. Essentially a long range

project, no indication of approximate date of completion is now possible.

See also IIIB₁ and D₃

2. HUBBARD, J. E.

[HARVARD UNIVERSITY]

Absorption of the United States debt

The problem with which this study is concerned is the distribution of ownership of the Federal debt, and the significance for financial organization that this distribution of ownership may have. The attempt is made to distinguish quantitatively between banking and non-banking ownership of the Federal debt for every fifth year from 1900 to 1915 and for every year from 1919 through 1936. Changes in ownership are being analyzed on the basis of the resulting estimates.

Initial results of this study have been published in the *Proceedings* of the American Economic Association for the 1936 meetings.¹ It is intended to bring the data up to date annually. The Committee on Research in the Social Sciences of Harvard University has provided financial assistance for the conduct of the inquiry.

¹ In addition, see also Joseph E. Hubbard, 'Absorption of the United States Debt,' *Review of Economic Statistics*, Vol. XVIII, No. 3, August 1936, pp. 126-33.

C. SAVINGS, INVESTMENT AND CAPITAL FORMATION

1. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Capital development and financial operations in relation to credit policy

This study analyzes: [1] production of durable goods, corporate financial policies, corporate earnings and borrowings for capital purposes, and, in general, the volume and nature of investment and savings; [2] the relation of security prices to general economic developments.

A continuing study, results will appear in connection with announcements of policies and in the Board's published analyses of current developments.

See also ID₄; IIA₁₃ and 16; IIB(c)₂; IIC₄

2. NATIONAL BUREAU OF ECONOMIC RESEARCH

Durable goods and gross capital formation in the United States, 1919-1935

The study of durable goods and capital formation in the United States over the last decade and a half has for its ultimate objective the measurement of the total volume of goods diverted from present to future use, and was undertaken to gain a fuller knowledge of the production

and flow of goods out of which investment and credit operations arise. Specifically, it aims to give two measures of capital formation: [1] the volume of gross capital formation, i.e., the total of all commodities currently produced and diverted for future use, adjusted for the consumption of raw materials and other non-durable commodities, but not adjusted for the current consumption of durable commodities; [2] the volume of net capital formation, i.e., the total of all commodities currently produced and diverted for future use, adjusted for the consumption of both raw materials and other non-durable commodities and the current consumption of durable goods. The first measure may be said to reflect the diversion of present goods to future use not only to satisfy new capital demands but also to meet requirements for replacement, while the measure of net capital formation reflects merely the diversion of present goods to future use to satisfy new capital demands of the national economy.

Because of the complexity of the task of making adjustments necessary for estimating net capital formation, the present inquiry is confined in scope to the measurement of gross capital formation. Accordingly, it is concerned solely with the following elements of which gross capital formation is comprised: [1] the value of the flow of finished durable commodities, i.e., consumers' as well as producers' durable goods, to their ultimate users at cost to them; [2] the value of substantial repairs and alterations of already existing commodities at cost to their users; [3] the net change in inventories held by their producers and distributors, plus the net change in inventories of non-durable commodities held by their users; [4] net changes in claims against foreign countries. The important steps taken to arrive at global estimates

of gross capital formation include: (a) the compilation of census year totals for consumers' perishable goods, consumers' semi-durable goods, consumers' durable goods and producers' durable goods; (b) the determination of annual totals, and their adjustment for imports and exports and for changes in price levels; (c) estimates of the spread in 1929 between the producers' value of finished goods and their cost to the ultimate recipient; (d) a survey of changes in transportation costs and distributive margins, 1919-34; (e) estimates of the volume of construction, 1919-34; (f) estimates of net changes in business inventories. Because of the difficulties of segregating finished goods from unfinished, finished durable from non-durable commodities, finished durable producers' commodities from those of the consumer category, complete estimates of the annual flow of all finished commodities, classified by durability at cost to ultimate recipients, are included in these sections of the study.

In preparation under the direction of Simon Kuznets, publication is expected by summer 1937.¹ The study was originally launched under the auspices of the Social Science Research Council, Committee on Banking and Credit, of which David Friday is chairman.

See also VB1 and 3

¹ Preliminary results were published in *Bulletin 52, Gross Capital Formation, 1919-1933* (National Bureau of Economic Research, 1934).

3. NATIONAL BUREAU OF ECONOMIC RESEARCH

Capital consumption in the United States, 1919-1935

Paralleling the study of gross capital formation, this investigation is exploring and compiling available data bearing on capital consumption in order to put the measurement of capital formation on a *net* as well as a

gross basis. It is assembling and collating data from business records and official sources on: (a) depreciation; (b) depletion; (c) retirement and abandonment; (d) destruction by accident; (e) loss on sales; (f) revaluations; (g) repairs, renewals and maintenance; (f) capital expenditure charged to current operations. While preliminary estimates of capital consumption have been derived from conventional accounting data, it has been found necessary for the proper interpretation of these figures to have recourse to supplementary information gathered more directly. This has led to several subordinate investigations of a reconnaissance character, e.g: (a) a detailed study of revaluations of fixed assets by industries on the basis of reports of listed corporations filed with the Securities and Exchange Commission; (b) an analysis of depreciation and depletion policies by industries, particularly with respect to changes in policies during the latest depression; (c) an estimate of depreciation and depletion charges by industries on the basis of 1929 prices, cost prices, and current replacement prices; (d) a study of maintenance charges by industries in relation to depreciation; (e) changes in intangible capital occasioned by the mortality rate of business concerns; (f) an examination of data reflecting the consumption of public capital.

In preparation under the direction of Solomon Fabricant. In view of the magnitude of the research task, publication is not feasible before 1938.¹

See also VB1, 3 and 9

¹ Preliminary results were published in two *Bulletins*: *Measures of Capital Consumption, 1919-1933*, and *Revaluations of Fixed Assets, 1925-1934* (National Bureau of Economic Research, 1936).

4. SCHUMPETER, J. A.

[HARVARD UNIVERSITY]

*Monetary time series
in relation to the process of investment*

As a part of a larger program dealing with business cycles and money, various monetary time series are analyzed in relation to the process of investment. Data subject to special statistical treatment include money in circulation; the ratio of deposits to loans in relation to the rate of interest; the interrelationships among deposits and investment holdings of banks; and other relevant financial series.

The results of this analysis are expected to be published in Professor Schumpeter's forthcoming study on time series and cyclical variations. They are also expected to be used in a projected treatise on money. Carl Thomas has assisted in the collection and analysis of the statistics.

See also ID4; IIA10, 13 and 16; IIB(c)5

PART III

Control and Supervision of Credit

TYPES OF PROJECT

Projects grouped together in this area include only those types that expressly investigate existing systems of control and supervision of credit with the purpose of: (a) supplying a more accurate description of the prevailing statutory framework of credit regulation; (b) determining the effectiveness of the several parts of the present system of regulation in attaining the functional ends for which they were devised; (c) evaluating the deficiencies and limitations of extant measures and instrumentalities of regulation in terms of the regulative functions that need to be performed; (d) examining critically the general effectiveness of governmental control and regulation of credit.

PART III

Control and Supervision of Credit

A. *Statutory Framework of Control*

- | | | | |
|----------------------|-------------|---|--|
| (a) Federal statutes | } affecting | { | The organization of financial institutions |
| (b) State statutes | | | The quantity of credit |
| | | | The quality of credit |

B. *Administrative Control and Regulation—Quantitative*

- | | | |
|-----------------------------------|---|--|
| (a) Treasury | } | Monetary policies—gold, silver, foreign exchange |
| | | Administration of Federal debt |
| | | Management of trust funds, Social Security, etc. |
| (b) Federal Reserve System | } | Discount and open-market policies |
| | | Regulation of margins on security loans |
| | | Regulation of member bank reserves |
| (c) Other Federal authorities | | |
| (d) State supervisory authorities | | |

C. Administrative Control and Supervision—Qualitative

- (a) Comptroller of the Currency { Chartering policies
Examination policies
Investment regulations
- (b) Federal Reserve System { Membership policies
Examination policies
Rediscount rules
Restraint of unsound practices
- (c) Federal Deposit Insurance Corporation { Membership policies
Liquidation policies
Examination policies
- (d) Securities and Exchange Commission { Registration of securities
Regulation of securities exchanges
- (e) Other Federal authorities
- (f) State supervisory authorities

D. General Effectiveness of Public Control and Supervision

- (a) Control of the quantity of money, currency, credit, etc.
- (b) Regulation of financial practices
- (c) Social and economic consequences of control and supervision

A. STATUTORY FRAMEWORK OF CONTROL

I. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, OFFICE OF THE GENERAL COUNSEL

Provisions of state laws relating to bank reserves

To provide a comprehensive view of the legal reserve requirements currently applied to banking institutions organized under state laws, the statutory provisions of various states relating to bank reserves are summarized. For each state, information is presented covering: (a) the financial institutions to which statutory reserve provisions apply; (b) the percentage of reserves required against deposits, demand and time; (c) the distribution of required reserves permitted by statute between those held in vault and those carried as balances with depositories; (d) provisions for the enforcement of statutory regulations; (e) special elaborating or modifying provisions incorporated in the statutes of individual states.

Recently completed, the results of this survey have been published in the Federal Reserve *Bulletin*.¹ The present summary is intended to supersede an earlier compilation of state reserve requirements published by the Board.²

¹ Federal Reserve *Bulletin*, March 1937, pp. 188-219.

² *Ibid.*, September 1930, pp. 570-97.

2. SECURITIES AND EXCHANGE COMMISSION, RESEARCH DIVISION

Existing regulation of investment trusts and companies (Investment Trust Study)

As an essential part of the background of its comprehensive investment trust inquiry, the Commission is making an extensive analysis of existing Federal and state governmental regulations that affect in one way or another the operations of investment trusts. In addition, the decisions of various courts concerning investment trusts and companies are being surveyed. 'Blue-Sky' laws, corporate laws and banking statutes are analyzed in terms of their applicability to investment trusts and companies.

In preparation under the direction of Paul P. Gourrich as a segment of the Commission's investment trust investigation authorized by the Public Utility Holding Company Act of 1935. This analysis is expected to be included in the reports of the investigation to be submitted to Congress in spring 1937.

See also IC(e) 1

3. NATIONAL BUREAU OF ECONOMIC RESEARCH

Federal and state laws affecting real estate financing

As another part of the National Bureau's investigation of real estate financing and economic stability, existing laws under which financial institutions make loans on real estate security are analyzed. The object is to ascertain what efforts different states have made to control real estate loans of financial institutions, and what types of limiting conditions they impose.

In preparation under the direction of David L. Wickens, an Associate of the National Bureau, and financed by a special contribution from the Social Science Research Council. Results of the analysis are to be included in studies of the National Bureau on real estate financing and economic stability.

For the main description of this project see VC2

4. FENNIMAN, W. C. [PHOENIX STATE BANK AND TRUST COMPANY, HARTFORD, CONN.]

*Discretionary powers conferred on trustees*¹

The purpose of this study is to trace the development of discretionary investment powers conferred by statute on trustees and to determine the present status of such powers. Statutes of all states are covered, classified accordingly as they: (a) specify particular classes of securities eligible for trust investment; (b) restrict trust investments to securities approved by state supervisory authorities; (c) provide for approval of trust investments by the courts; (d) authorize trust investment in securities affording reasonable security and interest; (e) follow the so-called Massachusetts rule; (f) provide no restrictions on trust investment; (g) impose different restrictions on corporate trustees as opposed to individual trustees. Different forms of discretionary investment powers are analyzed on the basis of this survey.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

5. GOLDSTEIN, L. E. [PUBLIC NATIONAL BANK AND TRUST COMPANY, NEW YORK, N. Y.]

*A comparative study of laws governing trust investments*¹

State laws regulating the investment of funds administered by trustees are surveyed to determine the range and variety of prevailing regulatory provisions. The purposes and effectiveness of specific statutory provisions are analyzed in order to establish a set of rules and regulations that might provide a framework for a uniform trust investment act.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

6. MARQUIS, RALPH, [UNIVERSITY OF ROCHESTER]
SMITH, F. P.

Capital and surplus of state and national banks

In this project an examination has been made of state and national bank provisions relating to required capital, surplus, the accumulation of earned surplus, minimum and maximum capital, and the proportions of capital to surplus and total capital-surplus to deposits. The approach has been historical, with surveys of the provisions of state and national banking laws covering 1910, 1930 and 1935. In addition to the survey of capital and surplus provisions in banking laws, a statistical study has been made of accumulated earned surplus in 1929 and 1935 for both state and national banks. This has involved the compilation of percentages of total surplus to capital, and capital and surplus to deposits, and the preparation of frequency tables.

This project has been completed, and a report will be published in a professional journal in 1937.

See also IE14

7. MARQUIS, RALPH, [UNIVERSITY OF ROCHESTER]
SMITH, F. P.

Double liability feature of bank stock

Recent modifications of provisions of national and state banking laws imposing a double liability feature for bank stock suggest the need for a reexamination of the history of double liability requirements. This is undertaken in the present study. First, a general historical survey is made of the development of double liability provisions in banking laws in the United States and Canada; second, a comparative analysis of the status of double liability provisions in all state laws and in the National Banking Act as of 1910, 1930 and 1935.

8. NEUMEISTER, C. A. [NATIONAL BANK OF
AUBURN, AUBURN, N. Y.]

*Statutory regulation of investments for guardians*¹

This is a comprehensive study of the laws of the various states with respect to the legal rights and responsibilities of trust companies in investing funds for guardians. The attempt is made to show by charts and descriptions the need for greater uniformity in the laws of various jurisdictions concerning this important trust business function. Obsolete, difficult, and in some cases, ridiculous regulations are pointed out.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

B. ADMINISTRATIVE CONTROL AND REGULATION OF CREDIT— QUANTITATIVE

1. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, DIVISION OF RESEARCH AND STATISTICS

Relations of governmental activities to credit policies

This involves analysis of governmental operations relating to taxation, budgets, and public debt, and also the operation of various governmental credit agencies and the social security program, with respect to credit policies of the Federal Reserve System.

The project includes a number of special and continuing studies made for the use of the Board. Some of the results appear in connection with announcements of Board policies; others may be published from time to time.

See also IIB(f) 1 and 2; IIIB₃ and 4

2. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, DIVISION OF RESEARCH AND STATISTICS

The effects of different bases of reserve requirements

The chief aim of this study is to test the operation of the proposal of the Federal Reserve System's Committee on Bank Reserves in 1933 for revision of the basis of com-

puting reserve requirements for member banks. The main features of this proposal were that the distinction, as to percentage of reserves to be held against the total volume of deposits, between time and demand deposits and between classes of cities be abolished; that reserves be also based upon turnover of deposits; that cash in vault be counted as reserves; and that changes be made in deductions from deposits against which reserves are computed. For the purposes of the study statistics from 1924 to 1935 covering the volume of deposits, debits against these deposits, and cash in vault were obtained from a large number of member banks, usually on a weekly basis for city banks and on a monthly basis for country banks. These data for each Federal Reserve district were compiled for groups of banks classified according to general economic characteristics of the regions in which they were located. For each group reserve requirements were computed on the basis of the Committee proposal and of the Federal Reserve Act, and the two sets of requirements were compared. Differences in the two sets of requirements were analyzed with respect to average level and to cyclical, seasonal and irregular movements. The information obtained is being used to study not only the effect of the operation of the Committee proposal but also the effects of other bases for computing reserve requirements of member banks, including probable reclassification of banks for reserve purposes.

In preparation as a special project of the Division of Research and Statistics, results will be used by the Board for the purpose of determining policy with respect to reserves and the need for new legislation. Principal results will probably be published by the Board.

See also IIIB₅

3. SOCIAL SECURITY BOARD, BUREAU OF RESEARCH AND STATISTICS

The operation and effects of the Unemployment Trust Fund

This project is devoted to the financial problems connected with the operation of the Unemployment Trust Fund provided for under the Social Security Act. The central objective is to determine the effects that the operation of the Fund may have on fiscal policies. As now planned, the investigation is to be directed to: (a) an examination of operating problems resulting from the possibilities of irregularities in deposits and withdrawals; (b) the economic effects of the present scheme as opposed to separate state funds; (c) effects on fiscal policy; (d) effects on the government bond market and the money market in general; (e) the relation of the Fund to credit control policies; (f) the impact of cyclical factors on the operation of the Fund.

At present in a preliminary stage under the direction of Eleanor L. Dulles as a Bureau of Research and Statistics project, an approximate date of completion or of publication cannot be indicated.

See also IIIB₁ and D₂

4. SOCIAL SECURITY BOARD, BUREAU OF RESEARCH AND STATISTICS

Federal management of trust funds

The experience of the government in the management of special trust funds authorized by Congress is being studied in relation to the problems that will be encountered in the operation of trust funds provided for under

the Social Security Act. This project involves an examination of the various types of trust fund with which the Treasury has had experience and the records of their administration, in particular the Civil Service Retirement Fund because of its special relevance to problems in the operation of the Old Age Reserve Account. Most of the materials for the study are to be secured from other governmental agencies.

In preparation under the direction of Eleanor L. Dulles as a project of the Bureau of Research and Statistics. When available, the findings will be released in a special report issued by the Bureau.

See also IIIB₁

5. AMERICAN BANKERS ASSOCIATION, ECONOMIC POLICY COMMISSION

Study of reserve requirements

In view of the authority of the Board of Governors of the Federal Reserve System, granted in the Banking Act of 1935, to increase or decrease the reserve requirements of member banks, the Economic Policy Commission is reexamining the problem of bank reserves.

It is expected that a report on the findings of the study will be submitted in 1937.¹

See also IIIB₂

¹ Colonel Leonard P. Ayres, Chairman of the Economic Policy Commission, also treated the problem of bank reserve requirements in his reports to the Executive Council, April 1933 and 1936.

6. BOPP, K. R.

[UNIVERSITY OF MISSOURI]

Comparative study of central banking policies

This investigation is devoted to a functional analysis of the credit and monetary policies of the central banking institutions of France, Germany, Great Britain and the United States. Comparative study, largely confined to the post-War period, is made along lines indicated by the following questions: (1) What areas of finance are affected by the policy of each central bank? (2) What are the agencies of policy and what responsible authorities finally decide the policies to be followed? (3) What in each case are the available instruments or tools of policy and what instruments of policy have been largely relied on in the past? (4) What has each bank tried to accomplish through its policies? (5) What indexes have been used in the making of policy? (6) To what extent have policies followed proved effective? In answering these questions, analysis is made of theories of central banking policy of central bankers and monetary theorists in each country, and also of the policies of the respective central banks as disclosed in documents and financial statistics.

Collection of materials was begun in 1932 under a fellowship granted by the Social Science Research Council. Several segments of the study have been finished and published as articles in professional journals.¹ Other sections will be published in article form as completed.

¹ Die Organe der Bundesreservepolitik, *Weltwirtschaftliches Archiv*, July 1933, Vol. 38, pp. 223-36; Recent Literature on the Federal Reserve System, *ibid.*, July 1934, Vol. 40, pp. 5-10; Die Politik der Deutschen Reichsbank seit der Stabilisierung, *ibid.*, November 1935, Vol. 42, pp. 446-83; and *The Agencies of Federal Reserve Policy*, University of Missouri Studies, October 1935, Vol. X, pp. 5-83.

C. ADMINISTRATIVE CONTROL AND SUPERVISION OF CREDIT— QUALITATIVE

I. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Bank supervision and the functions of bank supervisory agencies

One of the unique features of the American banking system as at present organized is the pyramid of supervisory agencies, Federal and state. The functions performed by the several supervisory agencies are in part complementary and in part supplementary. In several respects, however, they are duplicative and so give rise to administrative differences and conflicts. In view of this situation an investigation has been launched to analyze the types of supervisory action exercised, or authorized by law, by the various Federal and state banking authorities. The study will also involve a consideration of bank reports, examination methods and procedures, the effects of regulations or prohibitions of practices considered to be unsafe or unsound, bank capitalization practices, adequacy of banking facilities and bank chartering methods, standards for determining doubtful assets and other aspects of supervisory action. The objective is to build up a body of principles of bank supervi-

sion and to determine as precisely as possible the character and limits of supervisory action appropriate to the existing banking structure.

In preparation under the direction of Homer Jones as a Research Division project. Findings will be published from time to time in the *Annual Reports* of the Corporation.

See also IIC₄₋₇

2. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

Results of the liquidation of closed banks

With a view to providing the Corporation with information concerning the effectiveness of different ways of composing and settling claims of creditors of insolvent banks, and expenses and losses incidental thereto, experience is being investigated along three separate lines. First, a study of banks that were not licensed to reopen after the banking holiday or were reopened on a restricted basis only in order to determine: (a) the proportion of deposits that were not released to depositors; (b) the proportion of deposits released subsequently; (c) the number of banks reorganized and reopened; (d) the number of banks combined to form new institutions; (e) the number of banks completely or partly liquidated. Second, analysis of data published in the *Annual Reports* of the Comptroller of the Currency on the cost and length of time of receivership for groups of banks of different sizes. Third, a survey of the experience of state banking authorities in the liquidation of failed banks, with respect both to costs of receivership and to losses sustained by depositors.

In preparation, parts 1 and 3 under the direction of

Clark Warburton, part 2 under the direction of Florence Helm, as a Research Division project. Findings, as available, will be published in the *Annual Reports* of the Corporation.

3. UNIVERSITY OF VIRGINIA, INSTITUTE FOR RESEARCH IN THE SOCIAL SCIENCES

The supervision and control of Virginia state banks

One of Virginia's important economic problems is the proper control of her banking system. The purpose of this investigation is to indicate what elements in her present system of state bank supervision can be improved. The investigation is made up of the following main divisions: (a) the historical development of state incorporated banks in Virginia and of the successive regulatory and supervisory steps taken to control them; (b) an analysis of the legal status of state bank supervision; (c) a descriptive survey of the present system of state bank supervision in Virginia; (d) an analysis of the possible changes and modifications that might be made to strengthen the present system of supervision and institute a more satisfactory measure of control of local banking conditions.

Prepared by Allan G. Gruchy, Research Associate in Commerce of the Institute, publication early in 1937 is scheduled.

4. AMERICAN BANKERS ASSOCIATION, COMMITTEE ON BANKING STUDIES

Bank chartering and supervision

A new project devoted to questions of bank chartering and bank supervision in the United States has been au-

thorized by the Committee on Banking Studies. It is at present in an exploratory stage and plans for the entire program of study have not been fully worked out.

See also IIIC₁

5. AMERICAN BANKERS ASSOCIATION, STATE BANK DIVISION

Surveys on state bank supervision, 1934, 1929 and 1924

To ascertain tendencies in state bank supervision, the results of surveys of the status of state bank supervision made by the State Bank Division in 1924, 1929 and 1934 have been brought together in a single study. Summary analysis deals with: (a) the present status of state banking departments; (b) recent changes in the selection, qualification, terms of office, etc., of banking commissioners; (c) tendencies in the number, selection and assignment of bank examiners; (d) changes in capital requirements of new state chartered banks; (e) the addition to powers of state supervisors; (f) the views of supervisors on needs for new legislation. Other parts of the study present a complete tabulation by states of all questionnaire replies received from state bank supervisors in the three surveys.

Recently completed, this summary is available in mimeographed form to members only.

See also IIIC₁

6. JONES, HOMER

*Principles and practices of bank supervision in the United States*¹

The contemporary system of bank supervision in the United States is being analyzed to ascertain its essential principles as provided for under Federal and state bank-

ing laws, and the adequacy and effectiveness of current supervisory practices in terms of the ends that supervision is presumably designed to serve. The inquiry is being directed in the first instance to the control of the formation of banks and of their organization and structure as financial institutions. Consequently, it deals with such aspects of supervision as: (a) the chartering of banks; (b) the powers and limitations of powers of banks with respect to their banking and fiduciary activities; (c) powers of expansion through branches, mergers, consolidations and affiliates; (d) the regulation of capital structures; (e) relations with supervisory authorities. The second division of the inquiry is concerned with the supervision of operations of active banks, and analyzes: (a) supervision of banks from the standpoint of their liquidity or ability to maintain cash payments; (b) supervision with the aim of ascertaining solvency and preventing insolvency; (c) supervision from the angle of general social policy; (d) supervision as a service to banks; (e) the means of enforcement of supervision; (f) reports and examinations as supervisory instruments. A final section of the investigation is devoted to the regulation of inactive banks and covers: (a) double liability provisions of bank stocks; (b) the reorganization and reopening of closed banks; (c) receiverships and liquidation procedures; (d) publicity aspects of supervising bank liquidation.

It is the intention to publish several sections of the study when completed as articles in professional journals. The entire study will probably not be completed before 1938.

See also IIICr, 2 and 7

¹ Ph.D. thesis, The University of Chicago.

7. NEILAN, E. P. [FEDERAL RESERVE BANK OF NEW YORK,
NEW YORK, N. Y.]

*Trust examinations*¹

The adequacy of methods and procedures prevailing in the examination of trust departments of banks is the immediate problem of this inquiry. As a setting for analysis, the inauguration and growth of trust supervision by banking authorities is reviewed and the causes for the expansion of the trust examination program in recent years indicated. In the light of this setting, the following aspects of trust examinations are treated: (a) the problems of examining the administration and management of bank trust business, of determining the observance of laws and regulations, and of offering constructive suggestions for improved trust administration; (b) the distinctive qualifications of trust examiners and the problems of developing a competent examining personnel; (c) the effectiveness of accepted examination practices and changes in practices required to improve trust examinations; (d) specific problems of individual bank examination; (e) improved records and procedures of banks to expedite trust examinations.

See also IIC1 and 6

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association. This study represents the individual research of the author and is not to be construed as representing in any way official opinions on trust examinations.

D. GENERAL EFFECTIVENESS OF PUBLIC CONTROL AND SUPERVISION

I. FEDERAL DEPOSIT INSURANCE CORPORATION, DIVISION OF RESEARCH AND STATISTICS

History of insurance of bank obligations in the United States

This historical study of deposit guaranty systems that have been attempted in various states is divided into two main parts. The first part consists of a series of studies of experiments in the guaranty of obligations of banks and other financial institutions in states where they have been tried. The second part consists of a broader study of the history of deposit and other guaranty systems in the United States since 1800, and is designed to relate the three main waves of legislation dealing with the guaranty of bank obligations to the development of the banking and monetary system and to other social movements intent on remedying elements of financial insecurity. The object of the study as a whole is to describe and evaluate experience with the guaranty of bank obligations, both as a method of insuring the safety of the circulating media and as a method of protecting the savings of people of small means.

Under the direction of Clark Warburton as a Research Division project, it has been in process for two

years, but because of its scope and the difficulties of assembling adequate materials on individual state experiments, early completion is not expected. When available, publication is planned in the *Annual Reports* of the Corporation.

2. SOCIAL SECURITY BOARD, BUREAU OF RESEARCH AND STATISTICS

The insurability of unemployment and the actuarial soundness of state unemployment compensation plans

The objective of this project is to assemble more precise information concerning the financial adequacy and soundness of the unemployment compensation program provided for in the Social Security Act. The intention is to analyze unemployment experience, so far as records are available on an industrial, state and national basis, and to estimate the income and financial reserves necessary to meet arbitrary minimum compensation requirements growing out of irregularities in production. It is also planned to test on a sample basis the actuarial soundness of certain types of state unemployment plan, taking into account the particular contingent obligations assumed (size and duration of benefits, etc.) in relation to actual and prospective receipts from taxes.

In preparation under the direction of Eleanor L. Dulles as a Research Bureau project, this investigation is planned as a long range undertaking. At present, it is in a preliminary stage. Methods used in the study will be more clearly defined as materials are assembled and new data become available in connection with the administration of the Act.

See also IIB₃

3. SOCIAL SCIENCE RESEARCH COUNCIL, COMMITTEE ON SOCIAL SECURITY*Public financing of old age security*

The research problem of this project, briefly stated, is the apportioning and financing of old age security programs in foreign countries, the effects such security programs have had on governmental fiscal policies and tax structures and on financial organization generally. The ultimate objective is to appraise the American old age security program in the light of foreign experience. In the first section of the study the effects and costs of non-contributory old age insurance schemes in the various countries in which they have been applied are surveyed in detail. It includes such aspects of old age security programs of foreign countries as: (a) coverage of pension plans; (b) pensions paid, including variations in pensions due to political pressures, social changes, and inflationary or deflationary monetary developments; (c) administrative costs; (d) sources of funds and the allocation of costs among various governmental units or contributory groups as insured persons, employers and the government; (e) changes in policies; (f) the role of reserve funds where used and their repercussions on the structure and functioning of financial organization. The second part of the investigation is concerned with the total cost of old age security in relation to such elements as the national income, costs of government, and income distribution. A final section deals with trends in old age security systems, and entails a comparative analysis of different systems and the adjustments to which they have been subject from time to time to meet changing conditions and to modify their

effects on economic and social organization. The significance of underlying trends in terms of national income, consumer purchasing power and standards of living, capital formation and the institutional organization of the capital market is appraised critically.

In preparation under the direction of Margaret Grant Schneider of the staff of the Committee on Social Security. Completion and publication of this project is not expected before late 1937.

See also IIB(f)1; IIIB1

4. COLLEGE OF THE CITY OF NEW YORK

Railroad financial reorganization

In conjunction with an intensive investigation of railroad financial reorganizations during the depression, and their effects on the standing of various classes of railroad securities, legal requirements of different states limiting the investment of savings and trust funds in railroad securities are critically examined. Typical minimum standards found in state laws to govern the eligibility of railroad bonds for the investment of savings and trustee funds are tested by the performance of different railroads during the depression, arbitrarily classed either as good or bad railroads in conformity with accepted financial standards. Alternative standards, paralleling but modifying materially those commonly applied, are also tested for the depression. From the results of the analysis, it is expected that more effective legal standards to govern the investment of savings and trustee funds may be formulated and recommended for the revision of present laws.

G. W. Edwards is directing the study, which is

financed by WPA funds. It is to be completed by fall 1937.

For a supplementary description of this project, see also IVC₃

5. COLLEGE OF THE CITY OF NEW YORK

The securities of large corporations

Largely statistical, this project has reanalyzed relevant data available in public documents and publications of financial agencies in order to determine what particular information it is essential to provide the investor to enable him to appraise fairly the investment securities of large corporations. The object has been to organize and systematize existing investment security information, and to point out its gaps, so that a more effective public policy in regulating security issues and requiring publication of more complete reports may be worked out in the investor's interest.

Prepared under the direction of G. W. Edwards and financed by WPA funds, the project is completed but definite publication plans have not been made.

For a supplementary description of this project, see also IVC₄

6. RUSSELL SAGE FOUNDATION, DEPARTMENT OF REMEDIAL LOANS

Social consequences of consumer debt

This study, which constitutes the second part of a broad program of research in the field of consumer debt, will analyze the social consequences of the rapid increase in consumer obligations that occurred during the 1920's. It will draw its material from the records of (a) actions

for debt in the courts; (b) employers concerning wage attachments; (c) wage-earner bankruptcies; (d) family welfare agencies; and it will discuss the impact of business cycles upon indebted families.

The results of the investigation of wage attachments, which was undertaken jointly by the Federal Bureau of Labor Statistics and the Russell Sage Foundation, have been published.¹

For another part of this project see IIB(b) 1

¹ *Wage Executions for Debt* by Rolf Nugent, J. E. Hamm and F. M. Jones (Bulletin No. 622, United States Department of Labor, 1936).

7. RUSSELL SAGE FOUNDATION, DEPARTMENT OF REMEDIAL LOANS

Control of consumer debt

This third part of the consumer debt study will analyze state laws governing the collection of consumer debt and will appraise their responsibility for anti-social credit-granting practices and for family distress resulting from credit commitments. It will investigate experiments with devices for the control of consumer credit and with agencies for adjusting debts and will recommend legal and institutional reforms that might afford better regulation and control. An analysis of devices for liquidating consumer debt in Detroit has been published.¹

In preparation under the direction of Rolf Nugent, publication will probably be delayed until 1938 owing to the scope of the investigation and the collection of primary materials required for it.

For another part of this project see IB(b) 1

¹ *Devices for Liquidating Small Claims in Detroit* by Rolf Nugent, and *Instalment Sale Contracts in the Detroit Conciliation Court* by M. H. Risk in *Law and Contemporary Problems*, Volume II, No. 2, April 1935.

8. ASSOCIATION OF RESERVE CITY BANKERS, COMMISSION
ON BANKING LAW AND PRACTICE

*Plans for controlling the price level and business
fluctuations through monetary action*

As part of a long range program of study dealing with the effectiveness of government control and supervision of credit, special studies are prepared from time to time under the auspices of the Commission on Banking Law and Practice. Among those already completed are: [1] 'The Guaranty of Bank Deposits', by the Commission; [2] 'The Problem of Excess Reserves', by J. H. Riddle; [3] 'Social Credit Proposals', by Alvin H. Hansen; [4] 'Control of Prices and Business by the Federal Reserve System', by C. O. Hardy; [5] 'The Commodity Dollar', by Harry D. Gideonse; [6] 'Qualitative Credit Control', by Benjamin H. Beckhart; [7] 'Silver in America', by Neil Carothers.

9. BRATTER, H. M.

The silver episode

The various measures favorable to silver authorized by Congress since 1933, notably the Silver Purchase Act of 1934, are the center of interest of this study. After the role of silver in the development of the American currency system has been traced, the study focuses on the shaping of silver policy in 1933 and the economic and political forces contributing to the crystallization of policy into a national silver program. In this connection, it treats of: (a) the contentions of silver advocates; (b) the campaign of silver advocates to gain political attention for silver; (c) the London Conference of 1933 and the international silver agreement; (d) the adoption of

a national silver program by Congress; (e) the administration of the program. The final part of the analysis concerns the effects of the silver program abroad and at home.

Extensive appendix materials cover: (a) recent official documents and Acts of Congress relative to silver; (b) statistics on silver and gold in the currency system of the United States; (c) chronology of laws, executive orders, etc., relating to silver currency; (d) the effects of the silver program on China and a chronology of the action of China to protect her currency system; (e) Chinese currency orders, 1934-36; (f) Chinese statistics on silver and gold; (g) effects of the silver program on India; (h) Indian statistics on gold and silver; (i) statistics of silver prices and production, 1929-35, and of production, 1876-1935; (j) analysis of the flow, production and consumption of silver; (k) main features of the Mexican silver crisis of 1935.

At present in manuscript, this study will probably be published in 1937.

See also IA7 and 11

10. CHAPMAN, JOHN M.

[COLUMBIA UNIVERSITY]

Government intervention in banking

The aim of this study is to reexamine and appraise the effects of cumulative governmental intervention in American financial organization and to determine the extent to which governmental control of financial organization has been effective. It is planned to deal with the history of governmental intervention in banking and financial operations in this country and to analyze in some detail the extent of and reasons for present intervention in the fields of agricultural and urban mortgage

lending, and commercial and investment banking. A final part of the study is to be concerned with economic consequences of governmental intervention in financial organization.

Completion of this study, which has been in process for two years, is expected in 1937. Several members of the Banking Seminar of Columbia University, 1935-36, are collaborating in its preparation.

See also IC(h) 1 and 4

11. DAUER, E. A.

[NORTHWESTERN UNIVERSITY]

*The relations of the Federal government with
commercial banking*¹

A coordinated analysis is being made of the role of the Federal government as: (1) an agency of control of commercial banks; (2) an owner and competitor of commercial banks; (3) a borrower from commercial banks. Divided into three major parts, the first is devoted to a reexamination of governmental regulation of individual banks with the object of setting forth its scope, experience and limitations. The second part deals with the role of the government as an owner, through the RFC, of commercial banks and as an active competitor through the lending activities of the FCA, FHA, HOLC, RFC and other public or quasi-public agencies. The third part analyzes the relations of the government with commercial banks as a borrower and deals with effects that its borrowing and competitive activities have on its regulative policies, designed to make banking institutions more sound.

As now planned, this study should be completed by fall 1937.

¹ Ph.D. thesis, Northwestern University.

12. HERBER, J. A.

[NATIONAL CITY BANK OF
NEW YORK, NEW YORK, N. Y.]*The prohibition of interest on demand deposits*¹

The object is to ascertain the effects of the prohibition, under the Banking Act of 1933, of the payment of interest on demand deposits. The purposes that this prohibition was designed to serve are critically examined, and the historical background of the practice of paying interest on deposits is traced. Other aspects of the problem treated include the effects of the elimination of interest on demand deposits on: (a) interbank deposit balances; (b) the deposit policies of large corporations; (c) international banking relationships. The rise of practices rendering the prohibition of interest on demand deposits partly ineffective is considered in the last part of the study and their possible adverse consequences assessed.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

PART IV

Standards of Credit and Security Analysis

TYPES OF PROJECT

Projects brought together in this area are those types that undertake to: (a) deal critically with prevailing procedures and standards for appraising the soundness or quality of credit or securities; (b) derive more objective methods and standards of credit and security analysis from the study of the experience records of various financial institutions and from a more careful sifting and synthesis of information contained in financial reports and published sources. Most of such projects are concerned with the adequacy of procedures and standards of credit and security analysis apart from the special needs of particular creditor and investing agencies; a few, however, expressly consider the question from the standpoint of special needs.

PART IV

Standards of Credit and Security Analysis

A. Commercial and Mercantile Credit

- (a) Conventional standards for credit extension
- (b) Adequacy and sources of information used
- (c) Terms of credit extension

{	Interest rates and discount charges
{	Priority and security of credit
{	Method of repayment
- (d) Relation to production, capital turnover, earnings, etc.

B. Consumer and Personal Finance Credit

- (a) Credit conditions imposed by lender
- (b) Types and channels of information used
- (c) Terms of credit extension

{	Interest rates
{	Expense load
{	Penalties for default
{	Method of repayment
- (d) Dependence on occupation, income, and personal reliability

C. Investment Securities

- (a) Adequacy and accessibility of information

{	Financial reports
{	Investment services
{	Investment counselors
- (b) Techniques of credit analysis and ratings
- (c) Terms of credit extension

{	Interest rates
{	Underwriting costs
{	Priority status of securities
{	Maturity date
{	Sinking fund and other retirement provisions

- (d) Marketability as affected by
- Listing
 - Date of issue and maturity
 - Eligibility for legal investment
 - Tax exemptions
 - Relation of price behavior to interest changes and market fluctuations
 - By quality
 - By maturity

D. *Urban Mortgage Credit*

- (a) Methods of appraisal and valuation
- Residential properties
 - Apartment houses and large-scale housing projects
 - Commercial properties
 - Industrial properties
- (b) Terms of credit extension
- Interest rates
 - Fees, commissions, service charges
 - Mortgage priority
 - Repayment method
 - Foreclosure costs
- (c) Relation of mortgage debt to property condition and property and owner income

E. *Agricultural Credit*

- (a) Types of credit
- Mortgage
 - Intermediate
 - Production
 - Consumer
- (b) Kinds and sources of information used
- (c) Terms of credit extension
- Interest rates
 - Security and priority of credit
 - Method of repayment
 - Foreclosure costs
- (d) Relation of credit experience to crop cycles, crop diversification and farm income

F. Public Obligations—Federal, State, Local

- | | |
|---|---|
| (a) Types of public obligations | {
U. S. Government obligations
U. S. Government guaranteed obligations
State government obligations
Municipal and other local obligations |
| (b) Special features | {
Tax exemption
Statutory provisions regulating issue
Preferred status for institutional and legal investment |
| (c) Relation of Federal obligations to: | {
Fiscal policies
Monetary and credit policies
Social security program |
| (d) Relation of state and local obligations to: | {
Accumulated debt and budgetary conditions
Tax systems and tax-paying capacity
Local economic conditions |

A. COMMERCIAL AND MERCANTILE CREDIT

I. U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF
AGRICULTURAL ECONOMICS, DIVISION OF AGRICULTURAL
FINANCE

Factors of banking success or failure in Arkansas, Utah and Wisconsin

This study includes analysis of the purposes of and basis for liquidation of loans to local business firms and others who were borrowing customers of country banks. Elements of liquidity and risk in various types of loan to business firms are compared. Data on business loans were obtained directly from the banks, supplemented by data from examiners' reports. They cover the period 1925-35, inclusive.

In preparation under the direction of F. L. Garlock in cooperation with the respective state agricultural experiment stations and colleges.

For the main description of this project, see IE7

2. U. S. DEPARTMENT OF COMMERCE, BUREAU OF FOREIGN
AND DOMESTIC COMMERCE, MARKETING RESEARCH
DIVISION

*Mercantile credit extended by manufacturers
and wholesalers*

In conjunction with a survey of sales by wholesalers and collections on accounts receivable, data are now being gathered on credit extended by manufacturers and wholesalers to customers for a large number of commodity lines, and on the terms of sale which greatly affect the volume and soundness of such credit. Ratios of collections to accounts receivable are computed with the intention of establishing norms for given lines and more effective bases of comparison among lines. Designed with a view to providing more adequate materials for assessing the soundness of book credit, the project is as yet in an experimental stage and the coverage of manufacturing and wholesaling establishments is not as complete as the objectives of the survey require.

In preparation under the direction of W. W. White and E. L. Lloyd as a Marketing Research Division project. The National Association of Credit Men is cooperating in the conduct of the survey. Summaries of findings are published annually as special bulletins issued by the Marketing Research Division.

3. UNIVERSITY OF MINNESOTA, SCHOOL OF BUSINESS
ADMINISTRATION, FINANCIAL AND INVESTMENT REVIEW

Banking types in Minnesota

Continuing an extended investigation of country banking types in Minnesota, published in 1934, fragmentary

studies are being made of qualitative elements affecting customer loans, as terms, interest rates and other charges, collections and general banking policies and practices in customer lending.

In preparation under the direction of Russell A. Stevenson. The State Department of Banking is cooperating actively in these studies. As available, they will appear in the Institute's *Financial and Investment Review*.

See also IE7, 8 and 10

4. DUN AND BRADSTREET, RESEARCH AND STATISTICAL DIVISION

Retail credit survey

This study is intended to supply more adequate information concerning typical business ratios significant in credit analysis in different retail lines by size of firm group and geographical region. Ratios presented include: [1] various expense ratios as (a) cost of goods sold to net sales, (b) total overhead expense to net sales, (c) a breakdown of overhead items to net sales; [2] merchandise ratios as (a) gross margin to net sales, (b) gross margin to cost of goods, (c) inventory turnover or the cost of goods to average opening and closing inventories, (d) net sales to closing inventories; [3] the ratio of net profits to net sales. Information on annual sales and inventory changes and the credit policies of retail firms, including the typical proportion of credit sales of firms selling on open credit, has also been assembled.

Directed by Willard L. Thorp, Director of Economic Research, as a firm project. Published annually as a special Dun and Bradstreet report.

5. DUN AND BRADSTREET, ANALYTICAL REPORT
DEPARTMENT

Studies of various financial ratios by industries

The object of these studies is to develop significant financial ratios and test their sensitivity in order to improve credit analysis techniques. The ratios analyzed include: [1] capital ratios such as (a) fixed assets to tangible net worth, (b) current debt to tangible net worth, (c) net working capital represented by funded debt; [2] inventory ratios such as (a) net sales to inventory, (b) net working capital to inventory, (c) inventory covered by current debt; [3] sales ratios such as (a) average collection period, (b) turnover of tangible net worth, (c) turnover of net working capital.

Directed by Roy A. Foulke of the Analytical Report Department as a firm project. The results are presented from time to time in the *Dun and Bradstreet Monthly Review* and in successive editions of a special volume entitled *Behind the Scenes of Business*.

6. DAVIS, C. R. [STATE-PLANTERS BANK AND TRUST
COMPANY, RICHMOND, VA.]

*Statement analysis*¹

This study reviews critically various methods of analyzing the balance sheet and profit and loss statements of commercial borrowers. Financial budgets, interim trial balances, and consolidated statements are treated. The purpose is to evaluate the utility of various methods of statement analysis available to the credit man whose function is to safeguard the extension of short term credit.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

B. CONSUMER AND PERSONAL FINANCE CREDIT

1. U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF
AGRICULTURAL ECONOMICS, DIVISION OF AGRICULTURAL
FINANCE

Factors of banking success or failure in Arkansas, Utah and Wisconsin

A feature of this study is an analysis of the collection and loss experience with bank loans of less than \$500 made to borrowers other than farmers. These small loans are not exclusively consumer, but include many loans of this type. Data on small loans were obtained directly from the banks, and cover the period 1925-35, inclusive.

In preparation under the direction of F. L. Garlock in cooperation with the respective state agricultural experiment stations and colleges.

For the main description of this project see IE7

2. U. S. DEPARTMENT OF COMMERCE, BUREAU OF FOREIGN
AND DOMESTIC COMMERCE, MARKETING RESEARCH
DIVISION

Retail credit survey

The objective of this study is to assemble experience data on consumer credit extended by fourteen types

of retail outlets on open and instalment accounts in twenty states. Ratios of credit to total sales, bad debt losses to total credit and sales for different types of retail store are among the special calculations made to shed new light on the broader qualitative aspects of retail consumer credit. Coverage is as yet limited to the better grade of retail establishments but is being gradually extended.

In preparation under the direction of W. W. White and E. L. Lloyd as a Marketing Research Division project. The National Retail Credit Association is cooperating in conducting the survey. Summaries are published annually as special bulletins issued by the Marketing Research Division.

C. INVESTMENT SECURITIES

I. SECURITIES AND EXCHANGE COMMISSION, RESEARCH DIVISION

Characteristics of various types of investment trusts and companies (Investment Trust Study)

One phase of the Commission's investment trust study entails analysis of the investment experience records of different types of American investment trust from 1927 through 1935. Investment policies and practices of such organizations, including analysis of their portfolios, and methods of portfolio selection, are being critically examined. In addition, the investigation entails an evaluation of the securities issued by investment companies themselves from the investor's standpoint in the light of their capital structures, character and management, investment policies, investment experience, transactions in own shares, compensation of officers, and relationships with affiliated interests. Besides an examination of the records of investment companies, the analysis takes into account capital losses to investors from the ownership of investment company securities, income received from such ownership as compared with income receivable from alternative investment in long term interest-bearing issues, the market behavior of investment company issues as compared with that of other types of security.

In preparation under the direction of Paul P. Gourrich in accordance with the provisions of the Public Utility Holding Company Act of 1935, authorizing and directing the Securities and Exchange Commission to make a broad investigation of the functions and activities of investment trusts. The reports prepared in connection with the project are expected to be submitted to Congress in the middle of 1937.

For the main description of this project see IC(e)1

2. U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF AGRICULTURAL ECONOMICS, DIVISION OF AGRICULTURAL FINANCE

Factors of banking success or failure in Arkansas, Utah and Wisconsin

One phase of this inquiry is a study of the investment portfolios of closed and surviving banks. The purpose is to determine the experiences of banks with investments of various classes and ratings. Detailed investment lists were obtained from examiners' reports once each year, 1927-35, inclusive, for each bank included in the study.

In preparation under the direction of F. L. Garlock, in cooperation with the respective state agricultural experiment stations and colleges.

For the main description of this project see IE7

3. COLLEGE OF THE CITY OF NEW YORK

Railroad financial reorganization

With a view to developing a program of recommendations for reorganizing on a more satisfactory basis the financial structure of railroads, and also recommendations for modifying statutory standards governing the

investment of trust and other funds in railroad securities, this project is examining intensively existing railroad financial practices, the reorganizations during the depression and their effects on the standing of various classes of railroad securities. Important data bearing on the qualitative aspects of railroad securities are being assembled and analyzed in order to contribute a better basis on which to judge railroad investment issues. In addition, policies of such institutions as insurance companies and savings banks are investigated to determine the efficacy of the legal standards of investment to which they must conform.

G. W. Edwards is directing the project, which is financed by WPA funds. Completion is not expected before January 1938.

For a supplementary description of this project, see also IID₃

4. COLLEGE OF THE CITY OF NEW YORK

The securities of large corporations

Largely statistical, this project is reanalyzing relevant data available in public documents and publications of financial agencies with the purpose of evaluating the adequacy of information available for judging qualitative elements of investment securities. The broad objective is to organize and systematize investment security information to provide a more effective basis for public policy in regulating security issues and protecting the investor.

In preparation under the direction of George W. Edwards, and financed by WPA funds.

For the main description of this project, see IID₅

5. UNIVERSITY OF MINNESOTA, SCHOOL OF BUSINESS
ADMINISTRATION, FINANCIAL AND INVESTMENT REVIEW

*Investment standards and criteria for banks,
particularly country banks*

With a view to contributing to an improvement of analytical techniques for appraising bank investments, a series of fragmentary studies are being conducted dealing with various types and qualities of bonds. Various tests are examined and criticized with a view to determining generally valid and applicable rules.

In preparation under the direction of Laurence R. Lunden. As completed, the findings of these inquiries will be published in the Institute's *Financial and Investment Review*. Several of the studies have already been published.

See also IE₁₂; IVF₂

6. FITCH INVESTORS SERVICE, STATISTICAL DIVISION

The behavior of rated bonds, 1932-1937

This investigation is designed to provide a systematic summary of the market experience of rated bonds of higher grades over the recent period of unusually rapid change in bond market conditions, 1932-37. It is covering some five hundred industrial, public utility and railroad bond issues of investment and semi-speculative quality that are included in the A and B grades, classified by industry, maturity and rating. Weekly fluctuations are charted and compared to find common and distinctive behavior patterns within each group.

In preparation under the direction of John G. Becker

as a firm project, the study will be completed in summer 1937. Definite publication plans have not been made.

7. MOODY'S INVESTORS SERVICE

*The relationship of yield and price changes of
bonds of different maturities*

In order to attain a more objective and accurate basis for judging the price risk of investments of different maturities, a statistical investigation of price and yield change of all triple A bonds (Moody's ratings) from 1919 to 1936 by maturities is in process. Price and yield indexes for bonds of different maturities are being compiled as an adjunct of the study.

In preparation under the direction of Donald B. Woodward as a firm project. When completed, the results of the study will be made available in the regular publications of Moody's Investors Service.

8. MADDEN, J. T.,

[NEW YORK UNIVERSITY]

NADLER, MARCUS, SAUVAIN, H. C.

America's experience as a creditor nation

The financial lessons taught by the foreign investment experience of the United States during 1920-35 are the subject of this inquiry. The first part of the study describes the development of the United States as a creditor nation and analyzes the broader economic consequences of lending abroad by Americans. Against the background thus prepared intensive study is made of: (a) the course of defaults in foreign securities after 1929; (b) the amount of defaults in comparison with defaults suffered by American investors in certain groups of domestic securities; (c) the financial results, to Amer-

ican investors as a class, of foreign lending during sixteen years as measured by, first, the average rate of return received, and second, the total return of funds, interest and principal, plus the market value as of the end of 1935, as against total funds invested in foreign securities. This analysis is followed by a brief survey of the contemporary transfer problem and the present status of American foreign investments. A final section of the study deals critically with: (a) underwriting methods and practices of investment bankers; (b) the influence of governmental policy on foreign investment; (c) governmental protection of foreign investment; (d) practices in the readjustment of foreign defaults and the organization of the Foreign Bondholders Protective Council, Inc.

This study has recently been completed and published as a book.¹

See also IIB(c) 3

¹ Prentice-Hall, New York, 1937.

9. MEAD, E. S., [UNIVERSITY OF PENNSYLVANIA]
GRODINSKY, JULIUS

*Trends in profits of leading American corporations,
by industry groups*

Profit and financial tendencies among leading American corporations are intensively studied by industry groups for the periods of expansion, depression and recovery, 1923-36. The purpose is to relate the tendencies disclosed to major trends in American industrial development and to appraise the investment implications of recent tendencies against this background. The study is based on the published reports of all companies represented in the listings of the New York Stock Exchange.

Publication of the study as a book is scheduled for the fall 1937.

See also IIB(c)7

10. RODKEY, R. G.

[UNIVERSITY OF MICHIGAN]

Preferred stocks as long term investments

The problem of this investigation is to determine the effectiveness of preferred stocks in minimizing the time hazard of investment. Elaborating on a previous study published under the same title in 1932 in the Michigan Business Series (Vol. IV, No. 3), further tests are being made of conclusions tentatively reached in the earlier study that preferred stocks which are senior issues have a high degree of investment merit. Whereas former tests covered 1908-32, the present tests are using different starting dates, one in 1925 after stocks generally had had a long advance, and a second in the middle of 1929, near the top of the bull market. Relative market and investment behavior for preferred stocks of a senior status are being traced from these two dates to the end of 1936 in order to ascertain the extent to which such preferred issues may be depended on as sound investment media.

Completion of the study is expected by summer 1937.

11. YOUNG, W. N.

[CITY BANK FARMERS TRUST
COMPANY, NEW YORK, N. Y.]

*A management policy for equities in an
investment fund*¹

This is a case history of a hypothetical investment fund, established January 1, 1925, that provides for the maintenance of a predetermined ratio of common stocks by: (1) reducing stock holdings as the ratio of stock to total

account value rises, reinvesting the increment in prime bonds; (2) increasing stock holdings when the ratio of stock to total account value is below the predetermined standard and business indexes reflect an upward trend. The purpose is to ascertain how effective an investment policy of this type might prove in preserving the buying power of capital and income.

¹ Thesis, Graduate School of Banking, American Institute of Banking, Section American Bankers Association.

D. URBAN MORTGAGE CREDIT

I. FEDERAL HOME LOAN BANK BOARD, DIVISION OF RESEARCH AND STATISTICS

Mortgage market conditions in leading cities

In order to evaluate more effectively general conditions affecting different risk elements in mortgage lending, field surveys are being conducted in 239 cities of over 40,000 population. Data assembled include size and distribution of population; predominant economic activities determining community incomes; types and condition of mortgage finance institutions; extent of mortgage delinquency; amount of foreclosed property in hands of financial institutions; building and real estate activity; sales and rental trends. Each city is being mapped to show the physical property and mortgage risk conditions in accordance with the findings of each local survey.

The preparation and direction of this study is under Corwin A. Fergus, Director of the Division of Research and Statistics. No publication of the individual city surveys is planned as the information collected is for the confidential use of the Federal Home Loan Bank Board and its agencies. There is, however, a possibility that the composite results of these city surveys may be released at a future date.

2. FEDERAL HOUSING ADMINISTRATION, DIVISION OF
ECONOMICS AND STATISTICS

Analysis of mortgage investment experience

To promote the accumulation of more adequate information on the investment experience of private financial institutions, a technique for recording and analyzing relevant mortgage data by private financing agencies has been developed, and internal studies by private institutions encouraged. Among the more important items and relationships on which information is sought are: (a) the content and characteristics of institutional mortgage portfolios; (b) methods of adding to and disposing of mortgages; (c) shifts in terms of mortgage classes of properties mortgaged, methods of repayment; (d) the prevalence and extent of delinquency; (e) relationship of delinquency to age of mortgages, and type of property mortgaged; (f) the prevalence of foreclosure and the relationship of foreclosure to mortgage and property features; (g) the relationship between delinquency and foreclosure.

Prepared under the direction of L. N. Bloomberg, and available on request from the Division of Economics and Statistics. It is hoped that a number of institutions will apply the technique of analysis developed and pool their results through the Federal Housing Administration. This will make it possible for the Division of Economics and Research to work out summaries of the mortgage lending experience of groups of institutions.

See also IVD10 and 11

3. FEDERAL HOUSING ADMINISTRATION, DIVISION OF
ECONOMICS AND STATISTICS

*An experience study of insured modernization
loans and mortgages*

Using the internal records of the Federal Housing Administration for each insured loan and mortgage, this study involves an exhaustive analysis of the recorded data with a view to ascertaining significant information on the economic status of borrowers, the relationship of debt service to income and property values, the age and condition of properties, etc. It is expected that the findings will contribute to the development of standards for appraising risk and soundness of real estate lending.

A summary of the analyses prepared thus far by the Division of Economics and Statistics appears in the *Annual Report* of the Federal Housing Administration for 1936.

4. FEDERAL HOUSING ADMINISTRATION, DIVISION OF
ECONOMICS AND STATISTICS

*Operating experience of large scale housing
projects*

To aid in the development of objective standards for judging the relationship between various income, expense and balance sheet items in large scale housing projects, a summary is being compiled of the profit and loss statements and balance sheets of apartment houses and other large scale housing projects for 1935 and as many earlier years as practicable. Data have been accumulated covering more than 700 housing projects in New York, Chicago, Washington, Kansas City and San

Francisco. The financial statements collected are being analyzed by years and characteristics of properties.

In preparation under the direction of Paul M. Green. This survey is in an advanced stage and is expected to be completed in 1937.

5. FEDERAL HOUSING ADMINISTRATION, DIVISION OF
ECONOMICS AND STATISTICS

Principles of city structure

This investigation has the broad objective of ascertaining basic principles underlying the interrelationships of different urban areas, commercial, industrial and residential. Various unpublished statistics showing housing and intra-city population shifts are intensively examined with a view to determining patterns of city growth. A central part of the study is devoted to the analysis of property condition and durability in leading cities. Using information made available through real property inventories sponsored by the CWA and PWA during the last two years, property condition maps for more than 100 cities have been prepared. Differences in rent levels and property values in different areas are indicated on these maps; individual areas are also rated from a property standpoint as stable, improving, declining and hazardous, on the basis of data reflecting a variety of growth factors. Included in the significant summary data, organized by city blocks, on which these maps have been based are total residential structures, business structures, owner or tenant occupancy, average rent, percentage of structures under fifteen years of age, structures in need of repairs, and race of occupants. The principal focus of the study is on housing or residential

property conditions rather than on business and industrial properties.

In preparation under the direction of Homer Hoyt as a project of the Division of Economics and Statistics. Completion of the investigation is expected by spring 1937. The results will be published as a special FHA bulletin.

6. FEDERAL HOUSING ADMINISTRATION, DIVISION OF ECONOMICS AND STATISTICS

The relationship between income and rent

Relying on data gathered in the Financial Survey of Urban Housing, and in a similar survey supervised by the FHA for nine West Virginia cities, this investigation is concerned with the relationship between income and expenditure in housing tenants. Confined by available data to a period of declining individual incomes, 1929-35, the object of the investigation is to determine whether the proportion of income spent for housing accorded with some consistent pattern or underwent considerable change. By this means it is hoped to attain more reliable standards for appraising the soundness of relationship between mortgage debt charges and income. The surveys used as a source cover 10 to 20 per cent of the tenant occupied dwelling units in each city surveyed.

In preparation under the direction of J. Bion Phillipson as a project of the Division of Economics and Statistics, results are expected to be published in a special FHA bulletin.

See also IIB(d) 2

7. FEDERAL HOUSING ADMINISTRATION, DIVISION OF ECONOMICS AND STATISTICS

Underwriting manual for insured mortgages

As a means of contributing to the soundness of residential mortgage financing, an underwriting manual has been prepared to facilitate the appraisal of mortgage risk. Methods of mortgage risk rating, dwelling valuation, and dwelling cost estimation are fully analyzed, and detailed risk rating instructions are given. Though specifically conceived as an aid to the underwriting of mortgages eligible for insurance under Title II of the National Housing Act, the usefulness of the manual is not confined to such financing. Based on accumulated information concerning the best practice in mortgage financing, it is being continuously revised as new information on the soundness of mortgage credit becomes available.

The Underwriting Section is primarily responsible for the preparation of this Manual, under the direction of Frederick M. Babcock.

8. NATIONAL BUREAU OF ECONOMIC RESEARCH

Economic position of urban residential real estate (Real Estate Financing and Economic Stability)

Growing out of the financial survey of urban housing in 61 cities, a handbook is being prepared collating significant urban mortgage data and presenting them in such a way as to facilitate secondary research in real estate and mortgage problems. The materials covered bearing directly on the soundness of mortgage credit include: (a) the trend of urban real estate values; (b) the distribution of residential properties by type of structure,

value, age, condition, and tenure of occupancy; (c) rents for urban residential property and the relationship of rents to space and value; (d) rents and family incomes; properties mortgaged and the ratio of mortgage debt to value; (e) types, terms and interest rates of mortgages; (f) sources of mortgage credit; (g) measures of mortgage risks.

In preparation under the direction of David L. Wickens, an Associate of the National Bureau, as part of a large investigation of real estate financing and economic stability, financed from funds given for the purpose by the Social Science Research Council. Publication of this handbook is expected in early summer 1937.

For the main description of this project see IIB(b)2; see also VC2

9. NATIONAL BUREAU OF ECONOMIC RESEARCH

Mortgage financing of old urban properties
(*Real Estate Financing and Economic Stability*)

As part of a large study of real estate financing and economic stability, detailed investigation is being made of the mortgage indebtedness of broad areas in the Lower East Side and the Harlem district of New York City. This project is intended to supply information on practices of financing old properties without reference to depreciation and other elements that affect the soundness of mortgages.

Directed by David L. Wickens, an Associate of the National Bureau, and financed with WPA funds. The results are to be published as part of the National Bureau's study of real estate financing and economic stability.

See also VC2

10. MORTGAGE CONFERENCE OF NEW YORK

The status of mortgage investments of metropolitan savings banks

This investigation is concerned with the mortgage investment experience of eight New York savings banks from 1930 to 1935, and four banks in 1936, and covers all mortgage investments in New York City, Long Island and Westchester County. Investment elements investigated include type of property, e.g., residential, hotel or apartment, commercial, industrial; and the age, construction and location of the mortgaged property.

Directed by J. F. McKean, Executive Secretary of the Mortgage Conference. Findings are made available to member banks only.

See also IVD₂

11. NEW YORK STATE BANKERS ASSOCIATION, COMMISSION FOR THE STUDY OF THE BANKING STRUCTURE

Real estate mortgage loans in commercial banks of New York State

This study is analyzing the mortgage loan records of State banks outside New York City with the object of deriving from a survey of commercial bank experience with mortgage loans more effective standards for sound mortgage lending.

In preparation under the direction of F. E. Richter, Statistician of the Commission for the Study of the Banking Structure. The project is at present in a formative stage, the scope and methods of analysis being as yet undetermined.

See also IVD₂

12. ROWLANDS, D. T. [UNIVERSITY OF PENNSYLVANIA]

Financial experience of business properties exclusive of office buildings and small residential types

The object of this investigation is to bring together all available materials on business property financing in metropolitan centers, particularly in Philadelphia. Data bearing on the financing of apartment houses are receiving especial attention. The study incorporates life histories of business properties covered, including such factors as age, condition, use, area characteristics and changes, occupancy, management, kinds and amounts of financing, mortgage costs and terms, amortization provisions, rents and taxes. Ratios computed cover the relationship of: (a) mortgage debt to property value; (b) debt service and taxes to total and net income; (c) management expenses to total and net income.

The National Bureau of Economic Research is providing clerical assistance to the author, and the National Association of Building Owners and Managers is cooperating in providing data. In addition, the Prudential Life Insurance Company is supplying data on fifty business properties in Minneapolis and St. Paul. Data on Indianapolis properties have already been obtained from confidential sources. Completion of the study is expected by fall 1937.

E. AGRICULTURAL CREDIT

I. FARM CREDIT ADMINISTRATION, DIVISION OF FINANCE AND RESEARCH

Range livestock financing

The chief objective of the study is to determine the total debt-carrying capacity of a ranch and the method of extending credit that will be to the mutual advantage of the borrower and the financing institution. Experience records of the Federal Land Banks, production credit associations and Federal intermediate credit banks constitute the basic data. Certain other data are being collected from the agricultural colleges and directly from ranches through appraisal investigations being conducted by the Land Bank Division.

The study is being made by Frank I. Masche of the Economics Subdivision. An advisory committee composed of sheep men and of representatives from the divisions of the Farm Credit Administration immediately concerned with the financing of range cattle has been appointed to assist in the direction of the project and in the analysis and application of the results. No special publication of the findings is now planned.

2. FARM CREDIT ADMINISTRATION OF ST. LOUIS IN
COOPERATION WITH THE COLLEGE OF AGRICULTURE,
UNIVERSITY OF ILLINOIS

*Mortgage loan experience in Coles and seven adjoining
counties, Illinois*

With the purpose of ascertaining more precisely the factors affecting the success of mortgage loans in a limited area, intensive analysis is being undertaken of Federal Land Bank and insurance company loans. Field surveys are being made to supplement file record information. Data available in the hands of the Agricultural Adjustment Administration on the crop output of mortgaged farms in recent years are expected to be used, as well as data currently being gathered by the Bureau of Agricultural Economics in its survey of farm mortgages, land values, transfers and farm taxes. Approximately 1,000 mortgage loans closed from 1917 to 1932 will be covered by the study, although field surveys will be confined to about 100 mortgaged farms. This is the first of a series of sample area studies planned, and is therefore experimental.

In preparation under the direction of T. A. Porter of the Farm Credit Administration of St. Louis, it is a joint project of the St. Louis Farm Credit Administration and the College of Agriculture, University of Illinois. Completion of the project is expected by summer 1937. Publication plans are at present indefinite.

See also IVE7 and 9

3. FARM CREDIT ADMINISTRATION OF ST. PAUL,
STATISTICAL DIVISION

*Federal Land Bank loan experience in Michigan,
Minnesota, North Dakota and Wisconsin*

The loan experience of the St. Paul Federal Land Bank is studied in detail in order to attain more reliable standards for appraising credit risk. Each county in which a substantial volume of loans is now outstanding or were outstanding in 1933 and subsequent years is being studied. Data have so far been prepared showing the number and amount of loans outstanding by counties and the average land value per acre as indicated by loan appraisals. In addition, a certain amount of analysis has been made of farm mortgages as related to soil types of mortgaged farms, amount of down payment and other factors. It is planned to investigate loan experience by counties in the light of this background.

In preparation under the direction of W. L. Cavert, as a project of the Statistical Division of the Farm Credit Administration of St. Paul. Undertaken primarily as an internal project, the results will probably not be published. The project is not expected to be completed before 1938.

See also IVE9

4. RURAL ELECTRIFICATION ADMINISTRATION, RESEARCH
AND STATISTICS SECTION

*Factors affecting the credit standing of cooperative
agricultural groups*

This study has been undertaken to determine the relative risk that may be assumed in granting credit to newly

formed cooperatives. Various factors relating to agricultural conditions and loan experience of the area to be electrified are classified and analyzed. Factors considered in the examination of cooperative groups include farm income, land and building values, soil conditions, type and size of farms, tenancy, mobility of farm operators, mortgage foreclosures, and non-farming industries.

The examinations of cooperative agricultural groups are directed by Foster Adams as a Research and Statistics Section project. Inasmuch as this project is mainly concerned with assembling information bearing on current operating problems of the Rural Electrification Administration, no publication of findings is planned.

5. U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF
AGRICULTURAL ECONOMICS, DIVISION OF AGRICULTURAL
FINANCE

*Factors of banking success or failure in Arkansas,
Utah and Wisconsin*

Special attention is paid in this study to the purposes of and to the basis for liquidation of loans made to farmers in various agricultural areas. Experience indicating the liquidity and risk elements involved in loans of various types is also studied. The data on loans to farmers were obtained directly from the banks, supplemented with data from examiners' reports. They cover the period 1925-35, inclusive.

In preparation under the direction of F. L. Garlock, in cooperation with the respective state agricultural experiment stations.

For the main description of this project see IE7; see also IVE6 and 8

6. IOWA AGRICULTURAL [IOWA STATE COLLEGE]
EXPERIMENT STATION

*Economic provision of short term agricultural credit
in Iowa*

This investigation is to be concerned with the adequacy of short term agricultural credit facilities in Iowa and with the efficiency of methods of short term credit extension. It is expected in particular to deal with credit sources and with costs and terms of different types of short term agricultural credit, as related to various risk factors. Data indicative of the volume of short term credit and of methods in extending such credit are to be gathered over a period of several years on the basis of a sample covering several counties.

At present in an exploratory stage, the preparation of the study is in charge of W. A. Murray.

See also IE7; IVE5 and 8

7. IOWA AGRICULTURAL [IOWA STATE COLLEGE]
EXPERIMENT STATION

Soil survey, soil conservation, land classification and appraisal, and loan experience in Tama County, Iowa

This project combines an analysis of physical factors of land productivity with an economic and financial analysis in order to attain the most complete appraisal basis possible for weighing mortgage risk. It is expected that the collaborative efforts of agricultural and financial scientists will contribute materially to the development of more effective standards for determining in advance agricultural mortgage risk. Highly intensive, the project involves the detailed mapping of the soil resources and

physical features of a single county, the segregation of lands of various grades on the basis of productivity, the correlation of physical and productivity features of land with economic elements and mortgage loan experience in order to provide a sound basis for land appraisal in connection with taxation, land transfers and land financing. All farm lands will be covered but detailed appraisal of individual farms will not be attempted. It is expected that an efficient investigation routine may be worked out so that similar projects may be undertaken elsewhere at reasonable expense.

In preparation under the direction of P. E. Brown of the Agricultural Experiment Station, Iowa State College. The Resettlement Administration, the Soil Conservation Service, the Bureau of Soil Chemistry, and the Farm Credit Administration are cooperating by lending personnel and research facilities. Completion is not expected before summer 1938. Experiment Station bulletins will present results of the study.

See also IVE₃ and 9

8. MICHIGAN

[MICHIGAN STATE COLLEGE]

AGRICULTURAL EXPERIMENT STATION

*Agricultural loans of state banks in Michigan,
1928-1936*

This study has been projected to ascertain the distinctive liquidity features and risk factors to be taken into account in connection with loans to farmers by state commercial banks. The plans of investigation call for a transcription and analysis of bank ledger accounts of loans to farmers in at least five Michigan counties, and a questionnaire, to representative farm borrowers, on the use of borrowed bank funds. Data on mortgage loans made to

short term farm borrowers are also to be gathered. So far a preliminary sample of 100 loan accounts selected at random from each of five banks situated in different types of farming district has been collected and analyzed. When complete data are finally assembled, the experience of commercial banks with farm lending is to be related to the use of funds by borrowers, types of farming, and farm conditions and business cycle phases.

In preparation under the direction of Roy J. Burroughs of the Economics Section, completion is not expected before 1938.

See also IE7; IVE5 and 6

9. NEW YORK STATE [CORNELL UNIVERSITY]
AGRICULTURAL EXPERIMENT STATION

Land classification and loan experience

This project is a study of first mortgage loan experience in different land classes. The land in the counties to be studied has already been classified by the Department of Agricultural Economics and Farm Management according to present and probable future intensity of use. The purpose of the study is to determine the importance of the land classification from the standpoint of credit. The results are expected to be of assistance to farmers in planning their own use of available credit, and of value to lending agencies in helping to solve the problems of appraisal and of the distribution of lending risks.

The study is under the direction of S. W. Warren of the Department of Agricultural Economics and Farm Management, New York State Agricultural Experiment Station, Cornell University. The Farm Credit Administration is cooperating with the Experiment Station in

providing data and personnel for research. The Joint Stock Land Banks and other lending agencies are also providing data.

See also IVE₂, 3 and 7

10. NORTH CAROLINA [UNIVERSITY OF NORTH CAROLINA]
AGRICULTURAL EXPERIMENT STATION

Credit problems of North Carolina cropper farmers

The aim of this study is to determine the extent to which North Carolina cropper farmers rely on various types of farm credit, the cost to them of the credit used and the relationship of cropper farming to the cost of credit and credit risk. Data are being assembled by means of a questionnaire survey covering selected farms.

In preparation under the direction of Hugh H. Wooten, this study is intended to bring up to date a similar survey made in 1928, and to be completed within the present year.

11. TENNESSEE [UNIVERSITY OF TENNESSEE]
AGRICULTURAL EXPERIMENT STATION

Agricultural credit, eastern highland section of Tennessee

The purpose of this survey is to ascertain the kinds, extent, use and risk elements of farm credit in eastern Tennessee, and also the costs of credit and the types of farming in which credit is most frequently used. Data are being gathered by means of a questionnaire survey covering 200 representative farms in one county.

In preparation under the direction of C. E. Allred, the project will be completed by early fall 1937.

F. PUBLIC OBLIGATIONS

I. SOCIAL SECURITY BOARD, BUREAU OF RESEARCH AND STATISTICS

Wealth, income, debt, and tax paying capacity of states

Undertaken as an aid to policy formation on the part of the Social Security Board in administering the various provisions of the Social Security Act, this project considers the problem of the present and future standing of various states and their governments with the object of determining ability to participate in the social security program, and in particular to make public assistance payments and to maintain the solvency of accounts in the unemployment trust fund. This work is coordinated with other studies by the Board in related fields. The resources in the several states are being studied to indicate the levels and sources of income, the degree of diversity in types of industry and regularity of income, the extent to which these various types of income can resist or are susceptible to economic depression. Another aspect of this problem is the availability of wealth for tax purposes.

To a certain extent materials assembled by others in the Bureau will be used in the study. So far, various existing indices of state wealth have been collected and compared. Notes on the nature and extent of the resources, some of them not strictly comparable among states, have been prepared, and a method for grouping the states into

five classes, from rich to poor, is being developed. Data reflective of need and poverty will be further canvassed and compared with the wealth data. Wherever possible, data already available at other governmental agencies are being adapted for use in conjunction with this investigation.

Eleanor L. Dulles is in charge of this project of the Bureau of Research and Statistics. Because of the incomplete nature of the source materials it is impossible to indicate, even tentatively, when the study will be finished.

2. UNIVERSITY OF MINNESOTA, SCHOOL OF BUSINESS
ADMINISTRATION, FINANCIAL AND INVESTMENT REVIEW

Qualitative aspects of state and local government bonds

Paralleling studies of techniques for appraising the quality of private investments, fragmentary studies of elements concerned with the soundness of state and local credit are being carried forward. Criteria for evaluating credit risks have been worked out and are being subjected to exhaustive testing in the light of market behavior.

In preparation under the direction of Laurence R. Lunden, these studies are published as completed in the *Financial and Investment Review*.

See also IE₁₂; IVC₅

3. MUNICIPAL FINANCE OFFICERS' ASSOCIATION OF THE
UNITED STATES AND CANADA, COMMITTEE ON MUNICIPAL
DEBT ADMINISTRATION

The callable feature in municipal bonds

With the purpose of ascertaining the advantages and disadvantages to cities of inserting the callable feature in

their long term obligations, this project is investigating the experience of municipalities that have used this feature in their bonds. Materials for the study have been assembled by a questionnaire survey covering all cities that have used callable bonds and by a detailed analysis of all callable bonds issued in the period 1920-36 inclusive and reported in the annual volume, *Municipal Bond Sales*.

Prepared under the direction of A. M. Hillhouse, this study is scheduled for publication in summer 1937.

4. TWENTIETH CENTURY FUND

National debt and government credit

Exploratory in character, this study attempts a statistical and factual analysis of Federal, state and local government debts in relation to government income, population and wealth, and includes international comparisons. The object is to ascertain what available data indicate with respect to the amount of debt, capacity to support debt, and standing of public credit.

Prepared under the direction of Paul W. Stewart, publication is announced for early summer 1937.

5. TWENTIETH CENTURY FUND

Taxation in the United States

Primarily a study of types of tax levied by the Federal government, states and municipalities, this investigation undertakes to appraise critically their respective advantages and limitations, including, for example, incidence and burden, justice, administration, yield, stability of tax income, and effects on production and the distribution of income. Study is then directed to inter-governmental

tax relations and problems arising therefrom. Finally, the attempt is made to indicate appropriate lines on which tax structures should be organized to be effective under the diverse economic conditions and fiscal requirements to which various local and state governments and the Federal government are subject.

Prepared under the direction of Carl Shoup of the Fund's staff and Columbia University. Volume I, *Facing the Tax Problem*, has recently been published by the Twentieth Century Fund. Volume II, *Studies in Current Tax Problems*, will be released by the middle of the summer 1937.

PART V

Functions of and Needs for Credit

TYPES OF PROJECT

Projects reported in this area are those types that are devoted to problems of: (a) defining fundamental financial concepts; (b) describing the mechanisms and processes by which credit functions under modern economic conditions; (c) analyzing theoretically the stabilizing and unstabilizing effects of credit; (d) evaluating the alternative mechanisms of control and supervision of credit with respect to social needs. Such projects are primarily analytical or theoretical in approach and method.

PART V

Functions of and Needs for Credit

A. Concepts of Money, Currency and Credit

- (a) Meaning of money and currency { Functions of and needs for money
Nominalism, metallism, and commodity theory
Types of monetary standard
- (b) Meaning of credit { Time-space elements and the need for credit
Types of credit
Instruments of credit
Use of credit in payments, clearings, collections
Velocity of circulation
- (c) Relationships among currency, credit and prices

B. Credit and Economic Organization

- (a) Supply of credit { Individual savings
Corporate savings
Public savings
Currency and bank credit expansion
sion

- (b) Demand for credit { Working capital demands
Investment demands
Speculative demands
Consumer demands
- (c) Allocation of credit { Adequacy of facilities
Availability of information
Guidance of investment
Terms, as interest, priority, repayment method
- (d) Relation of credit terms to { Capitalization of income
Volume of circulating and other credit
Volume of debt service
Output of producers' and consumers' goods
- (e) Flow of credit and the mechanism of adjustment { Effects on prices, exchange rates, incomes, trade

C. Credit and Economic Stability

- (a) Credit as a cause of instability { Instability of prices and production as related to the quantity of credit
Costs of credit and the rate of debt formation
Fixed debt charges and fluctuations in income
Non-liquid assets of credit agencies vs. fluctuating withdrawals of deposits and other liabilities
Interest changes and fluctuations in security prices
Income distribution as related to changes in the quantity of credit

(b) Credit as an aid to stability and expansion

- Use of credit to stabilize production and prices
- Role of credit in accelerating capital formation, output and consumption
- Credit and the anticipation of income
- Function of credit in equalizing incomes and outlays
- Objectives of currency and credit management

A. CONCEPTS OF MONEY, CURRENCY AND CREDIT

1. BRYCE, R. B.

[HARVARD UNIVERSITY]

The demand for money and its influence

This inquiry is to consist largely of a reanalysis of available published statistics and descriptive materials and their interpretation within the framework of recent monetary theory. Theoretical aspects of the demand for money concept, notably as developed by Keynes, i.e., the concept of liquidity preference, are being explored at the outset. The significance of extant banking data is to be appraised subsequently in the light of this theoretical setting.

2. DALY, F. ST. L.

[TUFTS COLLEGE]

*The flow of purchasing power and the theory of neutral money*¹

This inquiry is concerned with flow of purchasing power concepts used in such theoretical studies as those of Foster and Catchings, Hobson, Keynes and Hayek. The object is to evaluate the flow of purchasing power concept in relationship to the terms, 'neutral money' and 'natural rate of interest', and so to enhance the analytical content of these terms for monetary theory and the formulation of credit and currency policies.

This study will probably be completed by late fall 1937.

¹ Ph.D. thesis, Harvard University.

3. EITEMAN, W. J.

[ALBION COLLEGE]

The relation of bank credit to commodity prices

From a purely accounting approach to bank credit phenomena, this study is reexploring the relationships among the quantity of money, velocity of circulation and the price level. The approach involves: (a) a study of accounting methods of crediting and debiting deposit balances; (b) an analysis of the meaning of bank liquidity both for individual banks and for banks collectively in the purely accounting sense; (c) an analysis of the demands for and uses of bank deposits by deposit owners; (d) the meaning of the existence of deposits in an exchange economy; (e) the relationship of the quantity of deposits to prices, and particularly the influence of prices on the quantity of bank deposits. The study seeks to determine the general validity of conclusions reached with reference to the relation of brokers' loans to stock prices when the same type of analysis is applied to the relation of bank deposits to commodity and other prices.

This inquiry is as yet in a formative stage.¹

¹ A partial development of the theory under examination was presented in an article, 'Stock Speculation, Bank Liquidity, and Commodity Prices', *American Economic Review*, December 1934, pp. 635-45.

4. FETTER, F. W.

[HAVERFORD COLLEGE]

*English theories of money, banking and
international finance, 1800-1870*

To interpret dynamically English thought in the formative period of modern financial organization, nineteenth century theories of money, banking and international finance are related to the political and economic changes and problems of the time. The following topics are among those receiving critical attention: (a) the opposition to the establishment of the gold standard and the agitation, 1820-50, for a paper or silver standard; (b) the relation between money and banking agitation and trade cycles; (c) the crystallization of orthodox commercial banking principles; (d) changing attitudes towards the monetary functions of banks; (e) theories concerning the effects of foreign investment on domestic employment, interest rates and prices. Finally the consolidation of English financial thought into a body of 'orthodox' principles in the second half of the period reviewed is to be studied in relation to the international dominance of England's finance growing out of her extensive foreign banking activities and her huge foreign investments.

It is expected that the various parts of this project will be published as articles in professional journals. Much of the material is to be gathered in England during the second half of 1937 under a grant from the Guggenheim Foundation.

See also IA4; VA8-10

5. LESTER, R. A.

[PRINCETON UNIVERSITY]

Early American monetary experiments

To illustrate and test accepted principles with respect to the issue of paper money, this study analyzes approximately ten early monetary experiments. These experiments are selected mainly from Colonial monetary experiences and those of the revolutionary and post-revolutionary experiences of the New England and Middle Atlantic States. They include such examples as: (a) Quebec's issue of 'playing card' money during the French and Indian Wars; (b) Pennsylvania's use of currency issues to meet the depression emergencies of 1720; (c) early currency issues of Massachusetts and her experiment with the tabular standard after the Revolution; (d) California's adherence to gold payments during the 'greenback period'.

According to tentative plans this study is to be completed by late summer and published as a book in the fall 1937.

6. MARGET, A. W.

[UNIVERSITY OF MINNESOTA]

The theory of prices

Recent controversy waged over central issues of the orthodox theory of prices affords justification for the reexamination of its postulates and methods undertaken in this inquiry. As a first step, the place and use of quantity equations in monetary theory and their relations to the quantity theory of money are reassessed. Charges that the older quantity equations are static in character and therefore inapplicable or of limited usefulness in dynamic analysis, as well as other criticisms, are fully

considered and their validity tested. In this connection, Keynes' equations are analyzed and their limitations indicated, notably with respect to their applicability to dynamic conditions. As a second step of the inquiry, analysis is directed to concepts underlying quantity equations. This entails a thorough reconsideration of the meaning of the quantity of money and related concepts on which the validity of quantity equations ultimately rests.

For other parts of this project, which is in preliminary form, see VB6 and C3

7. MARGET, A. W.

[UNIVERSITY OF MINNESOTA]

The velocity of circulation of money

Differences in meanings attached to the concept of velocity of circulation by various monetary and credit theorists, their recent tendency to break down their general velocity concepts into special classes of velocity types, and the unflagging efforts of statisticians to develop measures of velocity of circulation and its quantitative importance, are the subject of this inquiry. Generally speaking, the concepts advanced fall into one of two classes: [a] motion or flow theories, or [b] cash balance theories. These two classes of theories are subjected to intensive analysis to determine their validity and usefulness, for both theoretical and quantitative work. The section of the study devoted to motion or flow concepts deals with: (a) the quasi-motion theory; (b) the frequency of purchase concept; (c) the unit of work concept; (d) the circuit velocity concept; (e) the time of turnover and related concepts. The part concerned with the cash balance approach analyzes: (a) the cash balance concept and its corollaries, money in circula-

tion and out of circulation; (b) the real balance concept; (c) the absolute and the relative cash balance approaches; (d) the subdivision of cash balances into consumers' and traders' balances, reserve funds and the like. Factors presumably determining the size of cash balances relative to expenditures are studied in some detail. Finally, measures of velocities of circulation are surveyed and their adequacy in terms of the velocity concepts they represent appraised.

An appendix is planned listing recent literature on the velocity of circulation of goods and its relation to the velocity of circulation of money.

For another part of this project see IIA15

8. MINTS, L. W.

[THE UNIVERSITY OF CHICAGO]

*Aspects of banking theory in the United States and Great Britain*¹

With the object of ascertaining the influence of conflicting theories of banking and credit in the various provisions of the Federal Reserve Act, the development of American and English banking and credit theory is being traced. Theories of especial interest to the study are: (a) those pertaining to the question whether banks create a circulating medium and if so how the quantity of bank currency is limited; (b) those which affirm the need for elasticity of currency and the ways suggested for attaining it; (c) those relating to the need for and manner of providing liquidity for commercial banks. American and English banking theory is being intensively studied up to 1913.

Completion of the study is not expected before 1938.

See also IA4; VA4, 9 and 10

¹ Ph.D. thesis, The University of Chicago.

9. VINER, JACOB

[THE UNIVERSITY OF CHICAGO]

Studies in the theory of international trade

This series of studies¹ has been prepared with the expressed object of tracing the origin and development of classical trade and monetary theories at the hands of English and American writers. Of particular relevance to the present inventory are the studies reexamining the bullionist and currency controversies of the last century. The first is concerned with monetary controversy in the English inflationary period following the suspension of specie payments in 1797 and extending to 1815. It contains a critical exposition of both bullionist and anti-bullionist doctrines advanced in this period. The second study is devoted to the controversies that accompanied the ensuing deflation precipitated by measures and policies to reestablish specie payments, finally accomplished in 1821. The third study traces the currency-school banking-school controversy, 1825-65, its impact on the Bank Act of 1844, and the subsequent discussions concerning the role of banking operations, specie movements and Bank of England policies.

See also IA4; VA4, 8 and 10

¹ Published by Harper and Brothers, New York, 1937.

10. WADLEIGH, M. L.

*The currency-banking controversy, 1820-1860*¹

Because of the lasting imprint made by the currency-banking controversy, waged in England during the first three-quarters of the nineteenth century, on financial thought and institutional forms, this study is reviewing this controversy anew with the object of systematizing

points of view expressed on different aspects of the currency and banking problems. The first half of the study is devoted to the Currency School and traces the ascendent influence of its views on English banking system and the Bank of England. The second half is concerned with the rise of the Banking School, and the gradual penetration of its theories into monetary and banking policies.

June 1937 is the date set for completion of this study.

See also IA4; VA4, 8 and 9

¹ Ph.D. thesis, The University of Chicago.

II. WHITTLESEY, C. R.

[PRINCETON UNIVERSITY]

Neutral money and neutral exchange rates

Concepts of neutral money are examined with a view to their bearing on the problem of neutral or equilibrium exchange rates. The object is to develop a more meaningful definition of exchange equilibrium and to establish criteria for judging departures from a position of neutrality, commonly described as undervaluation or overvaluation.

This study will appear as an article in a professional journal in 1937 or 1938.

B. CREDIT AND ECONOMIC ORGANIZATION

I. AMOS, J. E.

[UNIVERSITY OF PITTSBURGH]

Economics of corporate saving

The explicit purpose of this study is to examine the extent, factors affecting, economic effects and theoretical aspects of corporate saving. First, the concept of saving and the place of corporate saving in it are analyzed. Second, a survey is made of available statistical materials from which corporate saving can be estimated. Third, several estimates of corporate saving and the methods used are critically reviewed; and the apparent amount of saving by corporations in the United States, 1922-32, is studied. Lastly, the factors affecting corporate saving, the theoretical consequences of this type of saving, and the effects of the surtax on undistributed earnings provided in the Revenue Act of 1936 are considered. The emphasis is on corporate saving as a special theoretical problem rather than on its more purely quantitative aspects as an element in the process of capital formation.

The study is to be completed and published as one of the Social Science Studies of the University of Illinois by late spring 1937.

See also IIC₂ and '3; VB₉

2. DUNCAN, A. J.

[PRINCETON UNIVERSITY]

*The process of trade adjustment,
South Africa, 1886-1934*

Against a background of international financial theory, classical and modern, this study undertakes a comprehensive examination of the process of adjustment to capital movements and changes in international trade in the case of South Africa during 1886-1934. The first part is devoted to the adjustments of the South African economy to variations in the rate of foreign investment consequent upon the discovery of gold in 1886. In accordance with the requirements of the subject, it deals exhaustively with: (a) the volume of foreign investment from 1886 to 1913; (b) South Africa's balance of payments; (c) changes in South African trade, prices, and terms of trade, costs and incomes accompanying those in capital movements; (d) parallels with and differences between what happened under South African experience and what accepted theory would expect to happen. In the second half of the study, the analysis is concerned with the adjustments made to the decline in the world demand for gold from 1913 to 1920 and to the increase in the world demand for gold, 1930-34. The facts of the decline and revival of demand are carefully traced, and the concomitant adjustments described. The repercussions, on South Africa's financial and productive organization, of the widespread abandonment of the gold standard during the late depression are given special treatment in this part of the study.

At present in completed manuscript form, it is tentatively expected that this study will be revised for publication under the auspices of the International Finance

Section of the Department of Economics and Social Institutions in Princeton University during 1937.

See also IA3; VB7

3. HARRIS, S. E.

[HARVARD UNIVERSITY]

Savings and investment concepts

This inquiry is an attempt to clarify the concepts of savings and investment that have played so prominent a role in monetary theory in recent years, and to appraise their usefulness for quantitative studies. Various available series that reflect the course and volume of savings and investments are being analyzed in terms of their relevance to various savings and investment concepts. The validity of certain theoretical hypotheses concerning the instability of the relationship between savings and investment and its significance as a factor in business cycles is to be tested.

See also IIC2 and 3; VB1

4. GILBERT, RICHARD

[HARVARD UNIVERSITY]

International adjustment under inconvertible paper conditions

This study is directed to an analysis and description of price, income and trade adjustment patterns under conditions of flexible exchange rates. It is first, to reexamine different theories of the mechanism of adjustment under free currency conditions; second, to review the findings of such special studies as have been made of experiences of price, income and trade adjustments under fluctuating currency conditions; and third, to study especially these adjustments as associated with currency movements,

during the recent depression, of England, France, the United States, and several other countries.

This is a long range project and is being financed by the Bureau of International Research of Harvard University.

See also IA2 and 6; VB8

5. MARGET, A. W.

[UNIVERSITY OF MINNESOTA]

The natural rate of interest

Concerned with the theory of the natural rate of interest, this study traces its historical background, notably the contributions of Wicksell and Böhm-Bawerk, and analyzes various conceptual aspects of the relations between the natural rate and market rates of interest from supply and demand angles. The purposes are to explore more adequately the meaning and implications of the natural rate concept, to determine the analytical usefulness of the natural rate in dealing with various theoretical problems, to ascertain the applicability of the concept of the natural rate in the formulation of banking and credit policies, and to compare bank rate policies based on the natural rate-market rate criteria with those based on other standards.

The study is made up of a series of lectures delivered at the London School of Economics in 1933 on the theory of the natural rate, a special inquiry into the implications of the concept for credit and discount policy theory, and a series of essays dealing with special phases of theory of the natural rate in terms of its real capital aspects.

6. MARGET, A. W.

[UNIVERSITY OF MINNESOTA]

The theory of prices

Using Keynes' theory of the relationships of the bank rate to the quantity of credit as a point of departure, a part of this inquiry reexplores the *modus operandi* of the bank rate of interest. This necessarily occasions a reconsideration of the following problems: (a) the rate of interest in economic organization and the relationship of the bank rate to the market and 'natural' rates of interest; (b) the interconnection and priorities in changes in the bank rate, the quantity of circulating credit (M'), and prices; (c) the interrelations among changes in the bank rate and output, earnings, the structure of production, savings, velocities of different classes of deposits, and conditions in the financial markets; (d) the functioning of interest as a capitalization factor for future incomes affecting prices and conditions in the financial markets and as a cost factor affecting the rate of investment and thereby output; (e) the relations presumably obtaining among credit (M'), prices and output.

For other parts of this project see VA6 and C3

7. VINER, JACOB

[UNIVERSITY OF CHICAGO]

Studies in the theory of international trade

Another of this series of studies reviews the history and present status of the theory of the mechanism of adjustment of international balances. Divided into two parts, the first considers the theory of adjustment as an automatic mechanism under the simplifying assumption of standard metallic money as the sole circulating medium, and evaluates critically the role of such equilibrating

forces as: (a) relative changes in demand; (b) relative price changes and the terms of trade; (c) velocity of money; (d) exchange rate movements. The second part deals with the theory of adjustment in the light of modern banking processes and analyzes: (a) the difference between a modern system without central bank control and one with central bank management; (b) the objectives of central bank control; (c) the operation of the mechanism of adjustment under the application of alternative central bank objectives; (d) the role of short term international loans under modern banking processes; (e) the Canadian mechanism of adjustment, 1900-13; (f) repercussions of business cycles on the international mechanism.

This analysis of the history and present status of the theory of the mechanism of international adjustment is contained in the volume, recently published, under the above title.¹

See also IA3, VB2

¹ Harper and Brothers, New York, 1937.

8. WHITTLESEY, C. R.

[PRINCETON UNIVERSITY]

International monetary issues

Whether or not a return to an international gold standard system is desirable, in view of the fixed parities it requires, is the central problem to which this study is devoted. The scheme of its organization, therefore, conforms with the pattern of subissues that this main question raises. These include: (a) the international functions of money, and the role and effectiveness of the gold standard in performing them; (b) the behavior of foreign trade under fixed and variable exchange rates; (c) the relations of fluctuating exchanges to other bal-

ance-of-payments elements and to trade barriers and governmental controls; (d) the effects of currency instability on foreign investments; (e) the repercussions of currency instability on commercial and central banks. A final part of the study comprises a survey of the current international financial situation and an analysis of the changes in monetary organization that it seems to demand.

This study has recently been published as a book.¹

See also VB4

¹ McGraw-Hill, New York, 1937.

9. WINAKOR, A. H.

[UNIVERSITY OF ILLINOIS]

Dynamics of working capital finance

This inquiry's approach into the working capital aspects of corporate business finance is entirely from the standpoint of economic forces to which corporate entities are subject. Analysis is directed first to the concept of working capital with the object of effecting a reorientation in terms of economic theory, business practice and accounting methodology, and also showing its interrelationship with the composite income flow and capital turnover of corporations through time. This analysis is followed by a consideration of business outlays and their relationship to working capital and its changes, with particular attention to repairs, maintenance, depreciation according to the size of the enterprise. Problems and methods of financing working capital under various conditions and for different purposes, i.e., seasonal, cyclical and secular requirements, including requirements under both inflationary and deflationary conditions, are next taken up successively. Finally, analysis is made of: (a) the relationship of working capital to the capitalization and short

term debt of corporate enterprise and its availability for capitalization changes and short term debt retirement; (b) special demands that may be made on working capital from time to time; (c) the relationship of working capital to dividend, surplus and corporate savings policies. The objective is to set in new perspective the determination of financial and credit structure of corporate enterprise, and to indicate some of the limitations of the conventional standards or norms of financial practice.

This study is in an advanced stage and is expected to be completed and published as a book in 1937.

See also IIC₃

C. CREDIT AND ECONOMIC STABILITY

I. WORKS PROGRESS ADMINISTRATION, NATIONAL RESEARCH PROJECT

Recent economic history of five towns

With the object of tracing the specific effects of Federal expenditures on small communities during the depression and recovery intensive study has been made of the course and phases of the depression in five selected communities of from three to five thousand inhabitants, situated in California, Georgia, Ohio, Massachusetts and Minnesota. Each town designated for study was chosen to represent different economic backgrounds. So far as possible, the communities selected were ones isolated from large marketing centers but located near the center of a county, so that the entire county constituted the marketing area for each town studied. Following uniform plans for procedure, available data have been collected on a monthly basis from the beginning of 1929 to the middle of 1936 covering: (a) principal liability and asset items of banks, together with debits and credits to deposit and loan accounts, and a classification of deposits by type of depositor; (b) sales, pay rolls, employment, accounts receivable for business establishments and manufacturing plants; (c) newspaper advertising; (d) receipts of post offices, public utilities, railroads, etc; (e) mortgage foreclosures, vacant properties, rents, and other data bearing

on real estate conditions; (f) indexes of retail prices, mostly food prices; (g) receipts, expenditures and borrowing of local government units; (h) expenditures of the Federal government on a county basis. Analysis of the data for each town is being made independently by the supervisors of the local surveys, and is to be supplemented by a general comparative treatment. While the restricted nature of the sample of the investigation imposes definite limits on the scope of generalization, it is hoped that some inferences of theoretical import may be drawn as to the effects on smaller communities of monetary and financial policies applied since 1933.

In preparation under the general supervision of Dorothy C. Bacon of Smith College; individual community surveys were carried on under the immediate direction of Donald M. Erb, Stanford University; Maurice R. Brewster, Emory University; Clifford L. James, Ohio State University; Richard L. Kozelka, University of Minnesota; and George R. Taylor, Amherst College. Publication by the Works Progress Administration of the completed study is expected by late spring 1937.

2. NATIONAL BUREAU OF ECONOMIC RESEARCH

Real estate financing and economic stability

Launched in 1935 at the suggestion of the Committee on Banking and Credit of the Social Science Research Council, this project is intended to deal comprehensively with the relation between real estate financing and economic instability. Based upon new, exhaustive information assembled in recent years through governmental sources, it is attempting to collate systematically and to analyze available materials bearing on all phases of real estate credit. Among the leading problems on which re-

search is being concentrated are the following: (a) the volume of mortgage credit outstanding classified by major fields, priority of mortgage, geographical location; (b) the volume of mortgage credit currently extended similarly classified, and apparent changes in the volume of mortgage credit extended in the past as affected by changes in real estate values, the volume of residential building and other construction activity; (c) the sources of real estate credit and the role of institutions that serve as intermediaries in its distribution to borrowers; (d) the purposes for which real estate mortgage loans are made, i.e., the acquisition of old or existing properties, the financing of new construction, the funding of old debts, the rehabilitation of working capital; (e) costs and other conditions affecting the volume of real estate credit, as interest rates, maturities, and repayment method; (f) risk factors peculiar to real estate credit and conditioning in various ways supply and demand forces; (g) the relation of the expansion and contraction of the real estate mortgage structure to real estate prices and to new construction, durable goods production, security market speculation and other phases of economic activity; (h) the relation of real estate and construction financing operations to the banking and credit structure.

In preparation under the direction of David L. Wickens, an Associate of the National Bureau, and financed from funds given for the purpose by the Social Science Research Council. Publication of the complete study is not expected before 1938. Partial findings of the investigation are to be published in the interim as monographs.

For other parts of this project see IC(f) 2; IIB(d) 2 and (e) 2; IIIA 3; IVD 8 and 9

3. MARGET, A. W. [UNIVERSITY OF MINNESOTA]

The theory of prices

A further section of this theoretical inquiry is devoted to the relationships of credit and prices to output from the standpoint of business instability. This entails analysis of the nature of savings and investment, the theoretical possibilities of a disparity between the two under a credit economy, and the impact of changes in credit, savings and investment on the structure and volume of employment and output. The significance of such concepts as the 'multiplier' and 'leakages', both for the theory of prices and output and for the critical appraisal of credit policies under various conditions, is examined in some detail. Keynes' doctrines as contained in his *Treatise on Money* and his *General Theory of Employment, Interest and Money* constitute the starting point from which this inquiry is developed.

For other parts of this project see VA6 and B6

4. HAMILTON, E. J. [DUKE UNIVERSITY]

John Law's system, the first experiment with a managed currency

This program of study plans a reexamination of all available writings of John Law with a view to restating the monetary principles underlying his system of currency management and ascertaining the sources from which he developed his ideas. It will also undertake to trace anew the genesis, operation and results of Law's monetary experiment on the basis of quantitative data covering the period 1711-25, to be gathered from manuscripts accessible in public and private archives in France. The ob-

jects of this part of the study are: first, to devise more accurate measures of major economic phenomena that were affected by his experiment; second, to determine and describe more precisely the effects that his experiment had on prices, wages, production and trade in both urban and rural areas, and also its effects on different social classes and French economic organization generally.

Materials for this study have been in process of collection for several years. Additional materials are to be assembled in France during the coming year under a grant from the Guggenheim Foundation. It is not expected to be completed before the end of 1938.

5. PHILLIPS, C. A., MACMANUS, T. F., NELSON, R. W.

Banking and the business cycle

The study attempts to reconcile and synthesize monetary or bank credit, structural and equilibrium theories of the business cycle and to analyze post-War cyclical phenomena in a synthetic theoretical framework. The monetary or bank credit theory, it is contended, explains the origin of business booms; the structural theory, with its emphasis on changes in the structure of production and the disequilibrium between savings and investment, explains the characteristics of the boom; and the equilibrium theory is necessary to describe the depression proper and to explain its severity and persistence. The central thesis is that the depression of the 'thirties and the feverish activity of the immediately preceding years reflected primarily bank credit phenomena, and that these phenomena are attributable to forces inherent in our central banking system. Against the background of the continuity of historical processes, the immediate causes

of the recent major depression have been traced, the point of departure being the economic and financial dislocations ascribable to forces generated by the World War.

The study then deals broadly with the financial setting of the post-War boom, including international and domestic factors, as price relationships, currency standards, the distribution of gold, and central banking policies. In this setting, post-War developments in American banking have been examined, in particular: (a) the expansion and contraction of bank credit, especially credit extended for capital purposes; (b) structural and organizational changes within the banking system and changes in the manner of its functioning; (c) central banking policies and operations and their impact on underlying financial development; (d) the conditioning effects of inflationary bank credit developments on the structure of production and the balance between investment and savings.

A succeeding part of the study is concerned with various aspects of the depression, and the elements determining its course, severity and duration, pertaining chiefly to the forces of crisis, the interrelationships of the security market collapse, the decline of production, producer and consumer incomes, and the collapse of the banking system. The final section is devoted to a critical appraisal of central banking policies and theories applied in the post-War period, based on the preceding theoretical and empirical analysis, and sets forth the authors' views of appropriate credit policies, and criteria for such policies, for preventing undue credit expansion and maintaining a balanced structure of production. Various aspects of recovery policies proposed and applied in recent years are evaluated in this connection.

This study has been completed and recently published.¹

¹ Macmillan and Company, New York, 1937.

6. REEVE, J. E. [THE UNIVERSITY OF CHICAGO]

*Monetary proposals for curing the depression in the United States, 1929-1935*¹

On the basis of pamphlet and periodical materials available in leading libraries, personal collections, the *Congressional Record*, and the correspondence files of the Treasury, various monetary proposals advanced in recent years for curing depression are analyzed. The period of study has been divided into five sub-periods and monetary proposals appearing in each are being separately studied by six major groups, including: (a) gold devaluation; (b) fiscal inflation; (c) banking reform and credit control; (d) silver schemes; (e) currency expansion; (f) miscellaneous proposals. Comparisons are to be made with reform proposals advanced under similar circumstances in the past.

The expected date of completion is June 1937.

¹ Ph.D. thesis, The University of Chicago.

LIST OF TITLES

A. PUBLIC AGENCIES

Board of Governors of the Federal Reserve System	
<i>Division of Research and Statistics</i>	
Capital development and financial operations in relation to credit policy	132
Causes and significance of current international capital movements	21
Closed bank study	87
Factors affecting changes in deposits	103
Interdistrict movement of funds	103
Measurement of the volume of deposits of all banks	104
Nature and causes of changes in currency in circulation	104
Provisions of state laws relating to bank reserves	141
Relations of governmental activities to credit policies	146
The effects of different bases of reserve requirements	146
Velocity of deposits at reporting member banks	105
Farm Credit Administration	
<i>Division of Finance and Research</i>	
Financial history of the joint stock land banks	74
Range livestock financing	194
OF ST. LOUIS [in cooperation with the College of Agriculture, University of Illinois]	
Mortgage loan experience in Coles and seven adjoining counties, Illinois	195
OF ST. PAUL	
Federal Land Bank loan experience in Michigan, Minnesota, North Dakota and Wisconsin	196
Federal Deposit Insurance Corporation	
<i>Division of Research and Statistics</i>	
Asset and liability characteristics of non-member insured banks	88
Bank supervision and the functions of bank supervisory agencies	151

Causes of bank failures and the relation of banking to business fluctuations	88
Effects of Federal Deposit Insurance Corporation policies on banks and other financial institutions	79
History of insurance of bank obligations in the United States	157
Operating experience of non-member insured banks as reflected in earnings and expense reports	90
Operating experience of non-member insured banks as reflected in examination reports	91
Operating experience of suspended insured banks	91
Quantitative aspects of insured bank deposits	106
Results of the liquidation of closed banks	152
The structure of financial organization and the relation of deposit insurance to different financial institutions	80
Federal Home Loan Bank Board	
<i>Division of Research and Statistics</i>	
Mortgage market conditions in leading cities	185
Federal Housing Administration	
<i>Division of Economics and Statistics</i>	
Analysis of mortgage investment experience	186
An experience study of insured modernization loans and mortgages	187
European housing practice and policies	71
Operating experience of large scale housing projects	187
Principles of city structure	188
Technique for real estate analysis	125
The relationship between income and rent	189
Underwriting manual for insured mortgages	190
Federal Land Bank of Louisville [in cooperation with Purdue University]	
An economic appraisal of the operation of national farm loan associations in the Fourth Federal Land Bank District	75
Federal Reserve Banks	
<i>Research Departments</i>	
OF BOSTON	
Member bank income and expenses, 1936	46
OF DALLAS	
Typical operating ratios of member banks in the Eleventh Federal Reserve District	47
OF NEW YORK	
International monetary organization and policy	21
Operating ratios of member banks in the Second Federal Reserve District	47

List of Titles

237

OF PHILADELPHIA	
Earnings and expenses in 1936 of member banks in the Third Federal Reserve District	48
Indiana State Department of Financial Institutions	
Indiana bank failures	93
The moratorium and rehabilitation of Indiana State banking	94
North Carolina State Banking Department [in cooperation with the North Carolina Bankers Association]	
Loan and investment experience records of North Carolina banks	94
Rural Electrification Administration	
<i>Research and Statistics Section</i>	
Factors affecting the credit standing of cooperative agricultural groups	196
Securities and Exchange Commission	
<i>Research Division</i>	
British investment trusts	69
Census of American listed corporations	119
Characteristics of various types of investment trusts and companies	67, 177
Existing regulation of investment trusts and companies	142
Investment counsel and supervisory services	70
Social Security Board	
<i>Bureau of Research and Statistics</i>	
Federal management of trust funds	148
Financial reserves for old age benefits under the Social Security Act in relation to the Federal debt	130
The insurability of unemployment and the actuarial soundness of state unemployment compensation plans	158
The operation and effects of the Unemployment Trust Fund	148
Wealth, income, debt and tax paying capacity of states	202
U. S. Department of Agriculture	
<i>Bureau of Agricultural Economics</i>	
DIVISION OF AGRICULTURAL FINANCE	
Factors of banking success or failure in Arkansas, Utah and Wisconsin	49, 92, 171, 175, 178, 197
Farm mortgages, land values, land transfers and farm taxes	128
U. S. Department of Commerce	
<i>Bureau of Foreign and Domestic Commerce</i>	
FINANCE DIVISION	
Foreign investments in the United States	118
International currency movements, 1919-1936	105

MARKETING RESEARCH DIVISION	
Mercantile credit extended by manufacturers and wholesalers	172
Retail credit survey	175
U. S. Treasury	
<i>Division of Research and Statistics</i>	
Statistics of capital movements between the United States and foreign countries	107
Virginia State Corporation Commission	
<i>Bureau of Insurance and Banking</i>	
BANKING DIVISION	
Virginia state banks prior to 1904	34
Works Progress Administration	
<i>National Research Project</i>	
Recent economic history of five towns	227

B. RESEARCH BUREAUS AND INSTITUTES

Brookings Institution	
America's stake in foreign investments	120
Brooklyn College	
<i>Bureau of Economic Research</i>	
Brooklyn banking developments, 1900-1934	35
Deposit activity in mutual savings banks	108
College of the City of New York	
Railroad financial reorganization	160, 178
The securities of large corporations	161, 179
Cowles Commission for Research in Economics	
Common stock prices, 1871-1936	121
Iowa Agricultural Experiment Station	
Economic provision of short term agricultural credit in Iowa	198
Soil survey, soil conservation, land classification and appraisal, and loan experience in Tama County, Iowa	198
Michigan Agricultural Experiment Station	
Agricultural loans of state banks in Michigan, 1928-1936	199
National Bureau of Economic Research	
Agricultural real estate and business cycles	129
Analysis of cyclical behavior	109
Capital consumption in the United States, 1919-1935	134
Durable goods and gross capital formation in the United States, 1919-1935	132
Economic position of urban residential real estate	126, 190
Federal and state laws affecting real estate financing	142

List of Titles

239

Mortgage financing of old urban properties	191
Real estate financing and economic stability	228
Some theoretical problems suggested by the movement of interest rates, bond yields and stock prices in the United States since 1856	122
The agricultural cycle and commercial bank solvency	95
The organization of the real estate market	72
New York State Agricultural Experiment Station	
Land classification and loan experience	200
North Carolina Agricultural Experiment Station	
Credit problems of North Carolina cropper farmers	201
Russell Sage Foundation	
<i>Department of Remedial Loans</i>	
Control of consumer debt	162
Economic characteristics of consumer debt	117
Social consequences of consumer debt	161
Social Science Research Council	
<i>Committee on Social Security</i>	
Public financing of old age security	159
Tennessee Agricultural Experiment Station	
Agricultural credit, eastern highland section of Tennessee	201
Twentieth Century Fund	
National debt and government credit	204
Taxation in the United States	204
Universities	
<i>Arkansas</i>	
COLLEGE OF AGRICULTURE, DEPARTMENT OF RURAL ECONOMICS [in cooperation with the Arkansas Bankers Association]	
Banking conditions and trends in Arkansas	34
<i>Colorado</i>	
BUREAU OF BUSINESS RESEARCH [in cooperation with the Colorado Bankers Association]	
Banking conditions in Colorado	36
<i>Denver</i>	
BUREAU OF BUSINESS AND SOCIAL RESEARCH	
Banking in Colorado	37
<i>Illinois</i>	
BUREAU OF BUSINESS RESEARCH	
Banking outlets in Illinois	37
<i>Minnesota</i>	
SCHOOL OF BUSINESS ADMINISTRATION, FINANCIAL AND INVESTMENT REVIEW	
Banking types in Minnesota	172

Extent of reserves to absorb losses in bonds in state banks	96
Investment standards and criteria for banks, particularly country banks	180
Qualitative aspects of state and local government bonds	203
<i>Nebraska</i>	
DEPARTMENT OF BUSINESS RESEARCH	
Adequacy of banking facilities in Nebraska	38
<i>Ohio State</i>	
BUREAU OF BUSINESS RESEARCH	
Building and loan developments in Ohio and in the United States	73
Member bank borrowings and money rates	109
Real estate finance survey, Franklin County, Ohio	117
State and national banking in Ohio, 1920-1936	39
<i>Pittsburgh</i>	
BUREAU OF BUSINESS RESEARCH	
The growth of Pittsburgh as a financial center	81
<i>Virginia</i>	
INSTITUTE FOR RESEARCH IN THE SOCIAL SCIENCES	
The supervision and control of Virginia state banks	153

C. PRIVATE ORGANIZATIONS

<i>American Bankers Association</i>	
<i>Agricultural Commission</i>	
Farm credit relations of banks	50
<i>Bank Management Commission</i>	
Interest rates paid on deposits	110
Investment standards and procedure	51
Loan administration policies	51
Pay-as-you-go checking accounts	52
Purchasing bank supplies	52
Standard accounts and standard statements for banks	53
<i>Committee on Banking Studies</i>	
Bank chartering and supervision	153
Governmental lending agencies	76
The postal savings system of the United States	76
<i>Economic Policy Commission</i>	
Study of reserve requirements	149
<i>State Bank Division</i>	
Survey of resources, liabilities, earnings and expenses of state banks	49
Surveys on state bank supervision, 1934, 1939 and 1924	154
<i>Trust Division</i>	
Studies in trust business	59

List of Titles

241

Association of Reserve City Bankers	
<i>Commission on Banking Law and Practice</i>	
Plans for controlling the price level and business fluctuations through monetary action	163
Dun and Bradstreet	
<i>Analytical Report Department</i>	
Studies of various financial ratios by industries	174
<i>Research and Statistical Division</i>	
Retail credit survey	173
Fitch Investors Service	
<i>Statistical Division</i>	
The behavior of rated bonds, 1932-1937	180
Moody's Investors Service	
Banking conditions and interest rates	111
Rates of income capitalization	124
The relationship of yield and price changes of bonds of different maturities	181
Mortgage Conference of New York	
The status of mortgage investments of metropolitan savings banks	192
Municipal Finance Officers' Association of the United States and Canada	
<i>Committee on Municipal Debt Administration</i>	
The callable feature in municipal bonds	203
Standard Statistics Company	
Corporation profits since 1900	124
State Bankers Associations	
<i>California</i>	
RESEARCH COMMITTEE	
Government lending agencies in California	77
<i>Iowa</i>	
BANKING ANALYSIS COMMITTEE	
Earnings and expenses of Iowa banks	53
<i>Kansas</i>	
COMMITTEE ON BANK MANAGEMENT	
Bank failures in Kansas and the adequacy of existing banking facilities	40
<i>Kentucky</i>	
BANKING RESEARCH COMMITTEE	
Bank service charges	54
<i>Louisiana</i>	
COMMITTEE ON BANKING RESEARCH	
Ratio analysis of failed banks in Louisiana	97

Missouri

COMMITTEE ON BANKING DEVELOPMENTS

Banking developments in Missouri 40

New York

COMMISSION FOR THE STUDY OF THE BANKING STRUCTURE

Real estate mortgage loans in commercial banks in New York State 192

Washington

BANKING RESEARCH COMMITTEE

New channels for bank loans 54

D. INDIVIDUAL INVESTIGATORS

Abbott, C. C.	
The New York bond market, 1920-1930	82
Amos, J. E.	
Economics of corporate saving	219
Bittner, P. W.**	
The investment organization of a small trust department	60
Black, J. D., Galbraith, J. K., Harris, S. E.	
The Farm Credit Administration	78
Bopp, K. R.	
Comparative study of central banking policies	150
Bratter, H. M.	
The silver episode	163
Brown, W. A., Jr., Smit, C. J., Silverman, A. G.	
The international gold standard reinterpreted	22, 111
Bryce, R. B.	
The demand for money and its influence	211
Chandler, L. V.	
Monopolistic competition in commercial banking	82
Chapman, J. M.	
Government intervention in banking	164
Dailey, D. M.	
The development of banking in Chicago, 1836-1890	41
Daly, F. St. L.*	
The flow of purchasing power and the theory of neutral money	211
Davis, C. R.**	
Statement analysis	174
Dauer, E. A.*	
The relations of the Federal government with commercial banking	165

List of Titles

243

Director, Aaron *	
The policy of the Bank of England since 1800	24
Dorman, B. K.**	
Trust business in Louisiana in the light of its civil law background	61
Duncan, A. J.	
The process of trade adjustment, South Africa, 1886-1934	220
Dunkman, W. E.	
Operating characteristics of the twelve Federal Reserve banks	32
Dunn, C. W.**	
The use of common trust funds by a small trust department	61
Eiteman, W. J.	
The relation of bank credit to commodity prices	212
Ellis, H. S.	
Exchange control in Central Europe	25
Fenniman, W. C.**	
Discretionary powers conferred on trustees	143
Fetter, F. W.	
English theories of money, banking and international finance, 1800-1870	213
Fischer, L. W.**	
The bases of trustee compensation	62
Galbraith, J. K.	
see <i>Black, J. D., Galbraith, J. K., Harris, S. E.</i>	
Gard, J. J.**	
The relation of capital to deposits in American banks	97
Gilbert, Milton *	
Currency depreciation in the latest depression	26
Gilbert, Richard	
International adjustment under inconvertible paper conditions	221
Goldstein, L. E.**	
A comparative study of laws governing trust investments	144
Graue, Erwin	
Silver, commodity prices and foreign trade	26
Grodinsky, Julius	
see <i>Mead, E. S., Grodinsky, Julius</i>	
Gurock, Louis **	
Brokers' loans and the stock market, 1926-1936	83
Hamilton, E. J.	
John Law's System, the first experiment with a managed currency	230
Harris, S. E.	
Savings and investment concepts	221

Harris, S. E.	
see also <i>Black, J. D., Galbraith, J. K., Harris, S. E.</i>	
Herber, J. A.**	
The prohibition of interest on demand deposits	166
Hoffman, G. Wright	
Credit aspects of commodity speculation, 1924-1936	83
Holl, L. C.**	
The administration of local bank branches	55
Holladay, James	
The Canadian banking system	42
Hubbard, J. E.	
Absorption of the United States debt	131
Huber, J. R.*	
Exchange control systems	27
Hunt, Pearson *	
Recent changes in the volume of self-liquidating loans of commercial banks	116
Irons, W. H.*	
The international gold standard crisis	27
Jones, Homer *	
Principles and practices of bank supervision in the United States	154
Knight, N. R.	
see <i>Preston, H. H., Knight N. R.</i>	
Lester, R. A.	
Early American monetary experiments	214
Gold parity depression in Norway and Denmark, 1925-1928	28
MacManus, T. F.	
see <i>Phillips, C. A., MacManus, T. F., Nelson, R. W.</i>	
Madden, J. T., Nadler, Marcus, Sauvain, H. C.	
America's experience as a creditor nation	181
Marget, A. W.	
The natural rate of interest	222
The theory of prices	214, 223, 230
The velocity of circulation of money	113, 215
Marquis, Ralph, Smith, F. P.	
Capital and surplus of state and national banks	144
Double liability feature of bank stock	145
McCaffrey, W. T.**	
The banking systems of England and the United States	43
McKee, C. W.*	
Sources and uses of bank funds, Shenango and Mahoning Valleys, Pa.	56

List of Titles

245

Mead, E. S., Grodinsky, Julius	
Trends in profits of leading American corporations, by industry groups	182
Mints, L. W.*	
Aspects of banking theory in the United States and Great Britain	216
Moore, D. A.**	
'Money rate' bonds of country banks	56
Munroe, T. W.**	
The investment problem of a small bank	57
Murad, Anatol *	
The monetary future of silver	29
Nadler, Marcus	
see <i>Madden, J. T., Nadler, Marcus, Sauvain, H. C.</i>	
Neilan, E. P.**	
Trust examinations	156
Nelson, R. W.	
see <i>Phillips, C. A., MacManus, T. F., Nelson, R. W.</i>	
Neumeister, C. A.**	
Statutory regulation of investments for guardians	145
Palyi, Melchior	
The financial structure of the Chicago area	84
Patenaude, F. W.**	
Compensation for trust services in Connecticut	62
Patton, W. J. L.**	
Ideal bank statements	58
Phillips, C. A., MacManus, T. F., Nelson, R. W.	
Banking and the business cycle	231
Preston, H. H., Knight, N. R.	
Seven decades of Washington banking	43
Reeve, J. E.*	
Monetary proposals for curing the depression in the United States, 1929-1935	233
Reid, J. C.**	
Personal loan departments in banks	66
Remington, J. W.**	
The association of banking and fiduciary services	63
Rodkey, R. G.	
Preferred stocks as long term investments	183
Rokahr, Theodore **	
Service charges on small checking accounts	58
Rowlands, D. T.	
Financial experience of business properties exclusive of office buildings and small residential types	193

- Sauvain, H. C.
 see *Madden, J. T., Nadler, Marcus, Sauvain, H. C.*
- Schumpeter, J. A.
 Monetary time series in relation to the process of investment 136
- Scully, C. Allison
 The purchase of common stocks as trust investments 64
- Secrist, Horace
 Standards for detecting the imminence of bank failure 98
- Severson, H. L.
 Investment banking in Chicago, 1833-1920 71
- Sheppard, H. L.
 The monetary experience of Belgium, 1914-1936 29
- Silverman, A. G.
 see *Brown, W. A., Jr., Smit, C. J., Silverman, A. G.*
- Skinner, R. Dana
 Monetary and banking factors in relation to interest rates
 and prices 113
- Smit, C. J.
 see *Brown, W. A., Jr., Smit, C. J., Silverman, A. G.*
- Smith, F. P.
 see *Marquis, R., Smith, F. P.*
- Snider, J. H.
 The place and functions of credit unions 66
- Sorrell, V. G.
 Trends in banking in New Mexico, 1920-1935 44
- Southard, F. A., Jr.
 Methods of financing export and import trade 30
- Steiner, W. H.
 South Carolina cash depositories 45
- Stephenson, Gilbert T.
 Foreign systems of trust business 65
- Stokes, M. L.*
 The development of central banking in Canada 31
- Torgerson, H. W.*
 The behavior of time deposits of commercial banks 114
- Turner, A. P. L., Jr.
 The national banking system 45
- Viner, Jacob
 Studies in the theory of international trade 217, 223
- Wadleigh, M. L.*
 The currency-banking controversy, 1820-1860 217
- Walk, E. C.*
 Loans of Federal agencies and their relationship to the capital
 market 85

<i>List of Titles</i>	247
Ward, Rodman **	
Establishment and maintenance of a common trust fund	64
Whittlesey, C. R.	
International monetary issues	224
Neutral money and neutral exchange rates	218
Wilkinson, J. H., Jr.**	
The security investment account of a commercial bank	59
Winakor, A. H.	
Dynamics of working capital finance	225
Young, W. N.**	
A management policy for equities in an investment fund	183

*Ph.D. thesis

**Thesis, Graduate School of Banking

INDEX OF NAMES

- Abbott, C. C., 82
Adams, Foster, 197
Allen, J. K., 78
Allred, C. E., 201
American Bankers Association
Agricultural Commission, 50
Bank Management Commission,
51-3, 110
Committee on Banking Studies,
76, 153
Economic Policy Commission,
149
State Bank Division, 49, 50n, 154
Trust Division, 59
Amos, J. E., 219
Arkansas Bankers Association
Research Committee, 35
Arkansas, University of
College of Agriculture, 34, 93n
Association of Reserve City
Bankers, 163
Ayres, L. P., 149n
Babcock, F. M., 190
Bacon, D. C., 228
Badgley, L. D., 126
Becker, J. G., 180
Beckhart, B. H., 163
Bittner, P. W., 60
Black, J. D., 78
Bloomberg, L. N., 186
Board of Governors of the Fed-
eral Reserve System
Division of Research and Sta-
tistics, 21, 87, 103-5, 132, 141,
146
Committee on Branch, Chain
and Group Banking, 96
Bopp, K. R., 150
Bratter, H. M., 163
Brewster, M. R., 228
Bristow, M. E., 34
Brookings Institution, 26, 120
Brooklyn College
Bureau of Economic Research,
35, 108
Brown, P. E., 199
Brown, W. A., Jr., 22, 111
Bryce, R. B., 211
Buckley, J. C., 120
Burns, A. F., 109
Burroughs, R. J., 200
Butz, E. L., 75
California's Bankers Association
Research Committee, 77
Carothers, Neil, 163
Cavert, W. L., 196
Central Statistical Board, 5, 16,
126
Chandler, L. V., 82
Chapman, J. M., 164
Chicago, University of
Social Science Research Com-
mittee, 71, 85
College of the City of New
York, 160-1, 178-9

- Colorado Bankers Association, 36
 Colorado, University of
 Bureau of Business Research, 36
 Cowles, Alfred III, 122
 Cowles Commission for Research in Economics, 121
 Cragun, D. B., 94
 Currie, Lauchlin, 87

 Dailey, D. M., 41, 85
 Daly, F. St. L., 211
 Dauer, E. A., 165
 Davis, C. R., 174
 Denver, University of
 Bureau of Social and Business Research, 37
 Dice, C. A., 110
 Director, Aaron, 24
 Dorman, B. K., 61
 Dulles, E. L., 130, 148-9, 158, 203
 Dun and Bradstreet, 173-4
 Duncan, A. J., 220
 Dunkman, W. E., 32
 Dunn, C. W., 61

 Edwards, G. W., 160-1, 179
 Eiteman, W. J., 212
 Ellis, H. S., 25
 Erb, D. M., 228

 Fabricant, Solomon, 135
 Farm Credit Administration
 Division of Finance and Research, 74, 194, 199, 200
 of St. Louis, 195
 of St. Paul, Statistical Division, 196
 Federal Deposit Insurance Corporation
 Division of Research and Statistics, 79-80, 88-91, 106, 151-2, 157
 Federal Home Loan Bank Board
 Division of Research and Statistics, 185
 Federal Housing Administration
 Division of Economics and Statistics, 71, 125, 186-90
 Federal Land Bank of Louisville, 75
 Federal Reserve Banks, Research Departments
 Boston, 46
 Chicago, 48n, 54
 Cleveland, 48n
 Dallas, 47
 New York, 21, 47
 Philadelphia, 48
 Federal Reserve Bulletin, 21, 21n, 104-5, 141
 Fenniman, W. C., 143
 Fergus, C. A., 185
 Fetter, F. W., 213
 Fischer, L. W., 62
 Fisher, E. M., 72
 Fitch Investors Service, Statistical Division, 180
 Foulke, R. A., 174
 Friday, David, 134
 Fritz, W. G., 81

 Galbraith, J. K., 78
 Gard, J. J., 97
 Garlock, F. L., 49, 93, 171, 175, 178, 197
 Gideonse, H. D., 163
 Gilbert, Milton, 26
 Gilbert, Richard, 221
 Gilmore, E. A., Jr., 39
 Goldstein, L. E., 144
 Gourrich, P. P., 69-70, 120, 142, 178
 Graduate School of Banking, 14, 60
 Graue, Erwin, 26
 Green, P. M., 188
 Grodinsky, Julius, 182

- Gruchy, A. G., 153
 Guggenheim Foundation, 213, 230
 Gurock, Louis, 83
- Haas, G. C., 108
 Halaas, E. T., 37
 Hamilton, E. J., 230
 Hamm, J. E., 162n
 Hansen, A. H., 163
 Hardy, C. O., 163
 Harris, S. E., 78, 221
 Harvard University
 Bureau of International Research, 222
 Committee on Research in the Social Sciences, 131
 Healy, R. E., 69
 Helm, Florence, 92, 106, 153
 Herber, J. A., 166
 Hillhouse, A. M., 204
 Hoffman, G. W., 83
 Holl, L. C., 55
 Holladay, James, 42
 Hornbeak, M. H., 97
 Hoyt, Homer, 189
 Hubbard, J. E., 131
 Huber, J. R., 27
 Hunt, Pearson, 116
 Hunter, K. H., 35
- Illinois, University of
 College of Agriculture, 37, 195
 Indiana State Department of Financial Institutions, 93-4
 Iowa, Agricultural Experiment Station of, 198
 Iowa Bankers Association
 Banking Analysis Committee of, 53
 Iowa State Banking Department, 53
 Irons, W. H., 27
 Jackson, Donald, 128
- James, C. L., 228
 Jones, F. M., 162n
 Jones, Homer, 91, 152, 154
 Joy, Aryness, 16
 Kansas Bankers Association
 Committee on Bank Management, 40
 Kellogg, L. S., 127
 Kentucky Bankers Association
 Banking Research Committee, 54
 Knight, N. R., 43
 Kozelka, R. L., 228
 Kuznets, Simon, 134
- Lester, R. A., 28, 214
 Lewis, Cleona, 121
 Lloyd, E. L., 172, 176
 Louisiana Bankers Association
 Committee on Banking Research, 97
 Lunden, L. R., 96, 180, 203
- Macaulay, F. R., 123
 MacManus, T. F., 231
 Madden, J. T., 181
 Maffray, August, 106
 Marget, A. W., 113, 214-5, 222-3, 230
 Marquis, Ralph, 144-5
 Martin, E. M., 16
 Masche, F. I., 194
 Mead, E. S., 182
 Michigan Agricultural Experiment Station, 199
 McCaffrey, W. T., 43
 McKean, J. F., 192
 McKee, C. W., 56
 McLeod, Hugh, Jr., 95
 Minnesota State Department of Banking, 96, 173
 Minnesota, University of
 School of Business Administration

- Financial and Investment Review*, 96, 172, 180, 203
 Mints, L. W., 216
 Missouri Bankers Association
 Committee on Banking Developments, 40
 Mitchell, W. C., 109
 Moody's Investors Service, 111, 124, 181
 Moore, D. A., 56
 Mortgage Conference of New York, 192
 Municipal Finance Officers' Association of the United States and Canada, 203
 Munroe, T. W., 57
 Murad, Anatol, 29
 Murray, W. A., 198
- Nadler, Marcus, 181
 National Bureau of Economic Research, 32, 72, 95, 109, 122, 126, 129, 132-4, 142, 190-1, 193, 228
 Nebraska Bankers Association, 39
 Nebraska, University of
 Department of Business Research, 38
 Neilan, E. P., 156
 Nelson, R. W., 231
 Neumeister, C. A., 145
 New York State Bankers Association
 Commission for Study of Banking Structure, 192
 Agricultural Experiment Station, 200
 New Mexico Bankers Association, 44
 New Mexico, University of, 44
 North Carolina, State University of
 School of Commerce, 95
 North Carolina Agricultural Experiment Station, 201
 North Carolina Bankers Association
 Research Committee, 94
 North Carolina State Banking Department, 94
 Nugent, Rolf, 118, 162
- Ohio State University
 Bureau of Business Research, 39, 73, 109, 127
- Palyi, Melchior, 84
 Patenaude, F. W., 62
 Patton, W. J. L., 58
 Pett, H. G., 54n
 Phillips, C. A., 231
 Phillipson, J. B., 189
 Pittsburgh, University of
 Bureau of Business Research, 81
 Pollak Foundation, 67
 Porter, T. A., 195
 Preston, H. H., 43
 Purdue University, 75
- Ratcliff, R. U., 72
 Reeve, J. E., 233
 Reid, J. C., 66
 Remington, J. W., 63
 Richter, F. E., 192
 Riddle, J. H., 163
 Risk, M. H., 162
 Rodkey, R. G., 183
 Rokahr, Theodore, 58
 Rowlands, D. T., 193
 Rural Electrification Administration
 Research and Statistics Section, 196
 Russell Sage Foundation
 Department of Remedial Loans, 117, 161-2

- Sauvain, H. C., 181
 Schenker, David, 69
 Schneider, M. G., 160
 Schumpeter, J. A., 136
 Schwartz, C. H., Jr., 74
 Scully, C. A., 64
 Secrist, Horace, 98
 Securities and Exchange Commission
 Division of Research and Statistics, 67-70, 119, 142, 177
 Severson, H. L., 71
 Shepherd, F. N., 14n
 Sheppard, H. L., 29
 Shoup, Carl, 205
 Silverman, A. G., 22, 111-2
 Skinner, R. D., 113
 Sloan, L. H., 125
 Smit, C. J., 22, 111
 Smith, F. P., 144-5
 Snider, J. H., 66
 Social Security Board
 Bureau of Research and Statistics, 130, 148, 158, 202
 Social Science Research Council, 25-6, 44, 96, 129, 143, 150, 191, 229
 Committee on Banking and Credit, 134
 Committee on Social Security, 159
 Sorrell, V. G., 44
 Southard, F. A., Jr., 30
 Spratt, W. E., Jr., 69
 Standard Statistics Company, 124
 Steiner, W. H., 36, 45, 109
 Stephenson, Gilbert T., 14n, 60, 65
 Stevenson, R. A., 173
 Stewart, P. W., 204
 Stockton, F. T., 40
 Stokes, M. L., 31
 Stonier, Harold, 14n
 Taylor, A. E., 119
 Taylor, G. R., 228
 Tennessee Agricultural Experiment Station, 201
 Thomas, Carl, 136
 Thompson, D. S., 79, 88, 90
 Thorp, W. L., 173
 Torgerson, H. W., 114
 Turner, A. P. L., Jr., 45
 Turner, R. C., 110
 Twentieth Century Fund, 204
 U. S. Department of Agriculture
 Bureau of Agricultural Economics
 Bureau of Soil Chemistry, 199
 Commodity Exchange Administration, 84
 Division of Agricultural Finance, 49, 92, 128, 171, 175, 178, 197
 Resettlement Administration, 199
 Soil Conservation Service, 199
 U. S. Department of Commerce
 Bureau of Foreign and Domestic Commerce
 Finance Division, 105, 118
 Marketing Research Division, 172, 175
 U. S. Treasury
 Division of Research and Statistics, 107
 Viner, Jacob, 217, 223
 Virginia State Corporation Commission
 Bureau of Insurance and Banking
 Banking Division, 34
 Virginia, University of
 Institute for Research in the Social Sciences, 153
 Wadleigh, M. L., 217
 Walk, E. C., 85

Index of Names

253

- Warburton, Clark, 81, 89, 153, 157
Ward, Rodman, 64
Warren, S. W., 200
Washington Bankers Association
Banking Research Committee, 54
Whalley, J. M., 37
White, W. W., 172, 176
Whittlesey, C. R., 218, 224
Whittsett, J. M., 39
Wickens, D. L., 73, 96, 127, 129, 143, 191, 229
Wilkinson, J. H., Jr., 59
Willet, Virgil, 73
Williams, J. H., 22
Winakor, A. H., 38, 225
Woodward, D. B., 111, 124, 181
Woosley, J. B., 95
Wooten, H. H., 201
Works Progress Administration, 34, 73, 88, 120, 125, 127, 160-1, 179, 191
National Research Project, 128, 227
Young, W. N., 183

PUBLICATIONS OF THE
NATIONAL BUREAU OF ECONOMIC RESEARCH

- ¹ INCOME IN THE UNITED STATES
W. C. MITCHELL, W. I. KING, F. R. MACAULAY AND O. W. KNAUTH
Volume I (1921) Summary 152 pp.
- 2 *Volume II* (1922) Details 440 pp., \$5.15
- 3 DISTRIBUTION OF INCOME BY STATES IN 1919 (1922)
OSWALD W. KNAUTH 30 pp., \$1.30
- ⁴ BUSINESS CYCLES AND UNEMPLOYMENT (1923)
By the NATIONAL BUREAU STAFF and sixteen COLLABORATORS 405 pp.
- ⁵ EMPLOYMENT, HOURS AND EARNINGS, UNITED STATES, 1920-22 (1923) WILLFORD I. KING 147 pp.
- 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 306 pp., \$3.50
- 8 BUSINESS ANNALS (1926) 380 pp., \$2.50
By W. L. THORP, with an introductory chapter, *Business Cycles as Revealed by Business Annals*, by W. C. MITCHELL
- 9 MIGRATION AND BUSINESS CYCLES (1926) 256 pp., \$2.50
HARRY JEROME
- 10 BUSINESS CYCLES: THE PROBLEM AND ITS SETTING (1927) WESLEY C. MITCHELL 489 pp., \$5.00
- ¹¹ THE BEHAVIOR OF PRICES (1927) F. C. MILLS 598 pp.
- 12 TRENDS IN PHILANTHROPY (1928) WILLFORD I. KING 78 pp., \$1.00
- 13 RECENT ECONOMIC CHANGES (1929) 2 vol., 950 pp., \$7.50
By the NATIONAL BUREAU STAFF and fifteen COLLABORATORS
- 14 INTERNATIONAL MIGRATIONS 1,112 pp., \$7.00
Volume I, Statistics (1929), compiled by IMRE FERENCZI of the International Labour Office, and edited by WALTER F. WILLCOX
- 18 *Volume II*, Interpretations (1931), edited by WALTER F. WILLCOX 715 pp., \$5.00
- ¹⁵ THE NATIONAL INCOME AND ITS PURCHASING POWER (1930) WILLFORD I. KING 394 pp.
- 16 CORPORATION CONTRIBUTIONS TO ORGANIZED

•*Out of print.*

- COMMUNITY WELFARE SERVICES (1930) 347 pp., \$2.00
 PIERCE WILLIAMS and FREDERICK E. CROXTON
- 17 PLANNING AND CONTROL OF PUBLIC WORKS (1930)
 LEO WOLMAN 260 pp., \$2.50
- 19 THE SMOOTHING OF TIME SERIES (1931) 172 pp.
 FREDERICK R. MACAULAY
- 20 THE PURCHASE OF MEDICAL CARE THROUGH FIXED
 PERIODIC PAYMENT (1932) 308 pp., \$3.00
 PIERCE WILLIAMS
- 21 ECONOMIC TENDENCIES IN THE UNITED STATES:
 ASPECTS OF PRE-WAR AND POST-WAR CHANGES
 (1932) FREDERICK C. MILLS 639 pp., \$5.00
- 22 SEASONAL VARIATIONS IN INDUSTRY AND TRADE
 (1933) SIMON KUZNETS 455 pp., \$4.00
- 23 PRODUCTION TRENDS IN THE UNITED STATES
 SINCE 1870 (1934) ARTHUR F. BURNS 363 pp., \$3.50
- 24 STRATEGIC FACTORS IN BUSINESS CYCLES (1934)
 JOHN MAURICE CLARK 238 pp., \$1.50
- 25 GERMAN BUSINESS CYCLES, 1924-1933 (1934)
 CARL T. SCHMIDT 288 pp., \$2.50
- 26 INDUSTRIAL PROFITS IN THE UNITED STATES (1934)
 RALPH C. EPSTEIN 678 pp., \$5.00
- 27 MECHANIZATION IN INDUSTRY (1934) 484 pp., \$3.50
 HARRY JEROME
- 28 CORPORATE PROFITS AS SHOWN BY AUDIT REPORTS
 (1935) WILLIAM A. PATON 151 pp., \$1.25
- 29 PUBLIC WORKS IN PROSPERITY AND DEPRESSION
 (1935) ARTHUR 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 SOME THEORETICAL PROBLEMS SUGGESTED BY THE
 MOVEMENTS OF INTEREST RATES, BOND YIELDS
 AND STOCK PRICES IN THE UNITED STATES SINCE
 1856 (in press) FREDERICK R. MACAULAY 500 pp., \$5.00

STUDIES IN FINANCE

A PROGRAM OF FINANCIAL RESEARCH

- I Report of the Exploratory Committee on Financial Research
 100 pp., \$1
- II Inventory of Current Research on Financial Problems
 250 pp., \$1.50

THE BULLETIN

Subscription to the National Bureau *Bulletin* (5 issues, \$1) may begin with any of the following numbers:

1934

- 49 NATIONAL INCOME, 1929-32, SIMON KUZNETS
- 50 RECENT CORPORATE PROFITS, SOLOMON FABRICANT
- 51 RECENT CHANGES IN PRODUCTION, C. A. BLISS
- 52 GROSS CAPITAL FORMATION, 1919-33, SIMON KUZNETS
- 53 CHANGES IN PRICES, MANUFACTURING COSTS AND INDUSTRIAL PRODUCTIVITY, 1929-1934, F. C. MILLS

1935

- 54 WAGES AND HOURS UNDER THE CODES OF FAIR COMPETITION, LEO WOLMAN
- 55 PROFIT, LOSSES AND BUSINESS ASSETS, 1929-34, SOLOMON FABRICANT
- 56 ASPECTS OF MANUFACTURING OPERATIONS DURING RECOVERY, F. C. MILLS
- 57 THE NATIONAL BUREAU'S MEASURES OF CYCLICAL BEHAVIOR, W. C. MITCHELL and A. F. BURNS
- 58 PRODUCTION IN DEPRESSION AND RECOVERY, CHARLES A. BLISS

1936

- 59 INCOME ORIGINATING IN NINE BASIC INDUSTRIES, 1919-1934, SIMON KUZNETS
- 60 MEASURES OF CAPITAL CONSUMPTION, 1919-1933, SOLOMON FABRICANT
- 61 PRODUCTION DURING THE AMERICAN BUSINESS CYCLE OF 1927-1933, W. C. MITCHELL and A. F. BURNS
- 62 REVALUATIONS OF FIXED ASSETS, 1925-1934, SOLOMON FABRICANT
- 63 THE RECOVERY IN WAGES AND EMPLOYMENT, LEO WOLMAN

EUROPEAN AGENT: MACMILLAN & CO., LTD.
ST. MARTIN'S STREET, LONDON, W. C. 2

CHECKED
2003-04

What must we know about
and financial institutions to
with urgent financial problems

In July 1936 the Association
Reserve City Bankers requested
National Bureau of Economic
research to suggest the means of
answering this question.

The answer is contained in
One of Volume I, the Report
the Exploratory Committee on
Financial Research. The program
research outlined was unanimously
accepted by the Executive Committee
of the National Bureau on
February 11, 1937, and the officers
directed to take steps to launch
It is now being presented to
ing and other financial associations.

Part Two of Volume I suggests
the line of approach and illustrates
projects that might be undertaken
immediately to give us a more
ordinated picture of financial
issues.

Part Three, herewith printed
Volume II, outlines research projects
on financial problems that are
going on in the United States.

SERV

1. R

2. E