HARVARD ECONOMIC STUDIES

VOLUME XLI

PART I

THE STUDIES IN THIS SERIES ARE PUBLISHED BY THE DEPARTMENT OF ECONOMICS OF HARVARD UNIVERSITY, WHICH, HOWEVER, ASSUMES NO RESPONSIBILITY FOR THE VIEWS EXPRESSED

HARVARD ECONOMIC STUDIES

- liam H. Price. 8vo.
- II. The Lodging House Problem in Boston. By Albert B. Wolfe. 8vo.
- III. The Stannaries: A Study of the English Tin Miner. By George R. Lewis. 8vo.
- IV. Railroad Reorganization. By Stuart Daggett. 8vo.
- V. Wool-Growing and the Tariff. By Chester W. Wright. 8vo.
- VI. Public Ownership of Telephones on the Continent of Europe. By Arthur N. Holcombe. 8vo.
- VII. The History of the British Post Office. By J. C. Hemmeon. 8vo.
- VIII. The Cotton Manufacturing Industry of the United States. By M. T. Copeland. 8vo.
- IX. The History of the Grain Trade in France. By Abbott Payson Usher. Svo.
- X. Corporate Promotions and Reorganizations. By A. S. Dewing. 8vo.
- XI. The Anthracite Coal Combination in the United States. By Eliot Jones. 8vo.
- XII. Some Aspects of the Tariff Question. By F. W. Taussig. 8vo.
- XIII. The Evolution of the English Corn Market from the Twelfth to the Eighteenth Century. By N. S. B. Gras. 8vo.
- XIV. Social Adaptation: A Study in the Development of the Doctrine of Adaptation as a Theory of Social Progress. By L. M. Bristol. 8vo.
- XV. The Financial History of Boston, from May 1, 1822, to January 31, 1909. By C. P. Huse. 8vo.
- XVI. Essays in the Earlier History of American Corporations. By J. S. Davis. 8vo. 2 volumes.
- XVII. The State Tax Commission. By H. L. Lutz. Svo.
- XVIII. The Early English Customs System. By N. S. B. Gras. Svo.
- XIX. Trade and Navigation between Spain and the Indies in the time of the Hapsburgs. By C. H. Haring. 8vo.
- XX. The Italian Emigration of Our Times By R. F. Foerster. 8vo.

- I. The English Patents of Monopoly. By Wil- XXI. The Mesta: A Study in Spanish Economic History, 1273-1836. By Julius Klein, Rvo.
 - XXII. Argentine International Trade under Inconvertible Paper Money: 1880-1900. By J. H. Williams. 8vo.
 - XXIII. The Organization of the Boot and Shoe Industry in Massachusetts before 1875. By Blanche E. Hazard. 8vo.
 - XXIV. Economic Motives. By Zenas C. Dickinson, 8vo.
 - XXV. Monetary Theory before Adam Smith. By Arthur E. Monroe. 8vo.
 - XXVI. Canada's Balance of International Indebtedness, 1000-1913. By Jacob Viner. Ava.
 - XXVII. The History of the United States Post Office to the Year 1820. By W. E. Rich. 8vo.
 - XXVIII. The Theory of International Prices. By James W. Angell. 8vo.
 - XXIX. Forests and Sea Power. By Robert G. Albion, 8vo.
 - XXX. Banking Theories in the United States hefore 1860. By Harry E. Miller. 8vo.
 - XXXI. Karl Marx's Interpretation of History. By Mandell Morton Bober. 8vo.
 - XXXII. Grain Growers' Cooperation in Western Canada. By Harald S. Patton, 8vo.
 - XXXIII. The Assignats. By S. E. Harris. 8vo.
 - XXXIV. The Economic and Social History of an English Village. By N. S. B. Gras and E. C. Gras. 8vo.
 - XXXV. Direct Taxation in Austria. By John V. Van Sickle. 8vo.
 - XXXVI. The Greenbacks and Resumption of Specie Payments, 1862-1879. By Don C. Barrett. 8vo.
 - XXXVII. The Street Railway in Massachusetts. By Edward S. Mason. 8vo.
 - XXXVIII. The Theory of Monopolistic Competition. By Edward Chamberlin. 8vo.
 - Interregional and International XXXIX. Trade. By Bertil Ohlin. 8vo.
 - XL. The French International Accounts, 1880-1913. By Harry D. White. 8vo.
 - XLI. Twenty Years of Federal Reserve Policy. By S. E. Harris. 2 vols. 8vo.

HARVARD UNIVERSITY PRESS

CAMBRIDGE, MASS., U.S.A.

LONDON: HUMPHREY MILFORD OXFORD UNIVERSITY PRESS

TWENTY YEARS OF FEDERAL RESERVE POLICY

INCLUDING AN EXTENDED DISCUSSION OF THE MONETARY CRISIS, 1927-1933

BY

S. E. HARRIS, Ph.D.
LECTURER ON ECONOMICS, HARVARD UNIVERSITY

VOLUME I A SURVEY OF FEDERAL RESERVE POLICY



Gokhale Institute of Politics and Economics, Poons 4.

CAMBRIDGE, MASSACHUSETTS
HARVARD UNIVERSITY PRESS
1933

COPYRIGHT, 1933 BY THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

PRINTED AT THE HARVARD UNIVERSITY PRESS

CAMBRIDGE, MASS., U.S.A.

To

H. H. B.

WHO AS MY TUTOR IN HARVARD COLLEGE FIRST INTERESTED ME IN ECONOMICS

FOREWORD

BESET by difficult problems, badgered by dualistic supervision and the lack of any potent instruments of control, the reserve system, which has now been in operation for almost twenty years, has nevertheless functioned remarkably well. To criticize from the vantage point of the present is easy, and criticism has been persistent and intensive; but the thought that the Federal Reserve Board and the reserve banks are manned by their present personnel rather than by many of their eminent critics is comforting; and the nation need not be ashamed of their achievements in the past.

It is argued in this book that the Bank rate has not played an important part in the determination of monetary conditions, that the effectiveness of open market operations has been exaggerated, that the use of moral suasion is fraught with danger and arouses dissention within the System, and, finally, that the administration of the eligibility provisions of the Federal Reserve Act has not provided reserve banks with a significant weapon of control. Bank rate has been relegated to an unimportant place, because the enforcement of a penalty rate is not practicable, because the use of the Bank rate as a weapon of restraint has been unpopular with politicians, and because in this country the usefulness of the weapon has been impaired by the peculiar relations of member and reserve banks. Furthermore, the failure of the reserve banks to interest themselves more in the size of reserve balances of member banks, and their inability to control adequately the magnitude of these balances, has impaired the usefulness of open market operations. Moreover, in carrying through their open market policies, they have been too optimistic concerning their capacity to determine the volume of indebtedness of member banks; and the relation of indebtedness and the investment policies of member banks has not always been on approved lines: the fact is that member banks (and more important all banks and non-banking lenders) have not always reduced their credit in the face of a large (and increasing) volume of indebtedness, when large profits might be made by purchasing additional assets. The results of moral suasion, another weapon popular

with reserve authorities and particularly with the politicians and the Federal Reserve Board (the link between the System and Congress), have disappointed most disinterested students of the System. In the past the use of moral suasion has been dictated by the assumed need of discouraging the *speculative* use of bank credit, and has been popular over a large part of the country. But only where money markets are not well organized and the possibility of earning large additional profits is great (by borrowing freely from the reserve banks and lending at higher rates), may the application of moral suasion be justified.

It may seem to many observers that, peculiarly in the United States, the orthodox weapons of control have lost their edge; but in truth the trend has been general since 1914, although the sensitivity to political influences of our system and the organization of our money markets and the reserve system have tended to accentuate this development here. On the other hand, the German Reichsbank. attempting to control a market with a distinctly limited volume of trade bills, and normally restricted in the investments purchasable. has relied with much success on moral suasion: it has rationed credit during crucial periods, determining rations partially by the use to which the funds obtained from the Reichsbank were to be put. Open market operations there have been of secondary importance, and the Bank rate, especially because of the internationalization of large volumes of short-term money, has been an ineffective instrument. In England the Bank rate, as a result of the diminishing importance of the trade bill and the increased capacity of foreign countries to attract foreign funds through the use of the Bank rate, has declined in importance. The issue of Treasury bills, much more important now than trade bills, is discouraged by an increase in Bank rate not nearly so much as is the issue of trade bills: the fact is that foreign lenders may be induced to finance their needs elsewhere when the Bank rate is increased, and when the financing of foreigners through acceptance credits is, relatively speaking, of lesser importance, the effectiveness of an increase in rates is impaired. Great Britain has also been affected adversely by political pressure directed against a courageous rate policy and by the difficulty of introducing economic adjustments that are a necessary part of a successful rate policy. On the other hand, the volume of short-term funds available for movement from one center to another is larger than it was before

the War. A central bank may strengthen its currency by attracting these funds, which may sometimes be an advantage; but more often it may be embarrassed by an influx of foreign money.

In one respect, the absence of tradition and the pressure of public opinion have been advantageous to the United States. Whereas officials of the Bank of England have announced that they are unwilling to assume the responsibility of creating cash beyond the needs indicated by the condition of the money market, the reserve authorities, under pressure by Congress and the threat of extreme legislation, have undertaken open market operations in 1932 on a scale never before attempted by any central banking authority—operations which have been of signal value even if they no more than proved the point that the mere creation of balances (reserves) by central banks cannot of itself bring about business recovery.

A phase of reserve policy requiring much more study than has yet been given to it is that of the relation of policies and conditions in one district to those in other districts. The condition of a reserve bank is to a much greater extent determined by the relations of the banks and the public in its district with other districts than it is determined by the relation of the reserve banks, as a group, to foreign countries. Inter-district transfers of cash, usually exceeding 10 billions monthly, are much larger than are international transfers. Inter-district clearings, government transfers of funds, open market operations, movements of funds between banks, currency movements, and so forth, determine the cash position of reserve banks to a considerably larger extent than do relations with foreign countries. Stringency to be associated with losses of gold abroad is usually felt in New York, for the most part; but not always. Moreover, open market operations, largely consummated in New York, first affect monetary conditions there; but these purchases flood the New York market with cash, while other districts, forced to pay for their share of the purchases, lose cash.

More information is needed on the questions of the inter-relationships of districts; it is necessary to consider the reserve policies of individual reserve banks as well as those of the System. In what manner and to what extent does ease or stringency spread from New York to other districts? To what extent are policies determined by purely local conditions? To what extent does the Kansas City Reserve Bank enforce its policy as against that of the reserve system? In what manner does the New York District defend itself against bearing an excessive share of the burden of both international and local movements? These and similar questions require answers before we can understand reserve policy. An attempt is made to study problems of this nature here. Attention is also directed to the discussion of inter-regional movements of deposits, which subject receives much space in the second volume.

If this book is written around any central philosophy, it is that central banks, in attempting to impose their policies on the country, encounter very serious obstacles. Their weapons are neither so potent nor so sharp as is commonly assumed; and for any successes, reserve banks owe much to the gullible public, which labors under misapprehensions concerning the power of reserve banks.

A word about the arrangement of this book. In a survey of Federal reserve policy for the years 1914-33 that is presented in the first volume, weapons of control used by the reserve banks are discussed from a theoretical and historical viewpoint. I have tried to use all available sources of information, including the vast collection of Government documents and Mimeographed Letters and Statements of the Federal Reserve Board, neither of which has ever been examined systematically.

Volume II is devoted to an intensive study of the monetary policies of the crucial six year period, 1927-33. This volume, or at least the first half of it, is more difficult reading than is the first volume. I have made an attempt to study the mechanism of open market operations, particularly in relation to inter-regional questions, and I have devoted much attention to the movement of cash or deposits between different parts of the country, as well as the inter-regional balance of payments. The United States is in truth a continent: there are twelve central banks and numerous money markets. A student may neglect some very important aspects of reserve policy if he proceeds on the assumption that the System policy is all that is to be considered, and that relations with foreign countries are the only aspect of the problem of the balance of payments that matters.

In the latter part of Volume II the legislation of 1933, actual and proposed, as well as the extraordinary open market episodes of 1929-32, are studied in some detail and their significance for the problems of central banking indicated. Volume II also includes a

statistical appendix in which numerous problems are discussed. It seemed desirable to collect the charts and to discuss them in an appendix although references are made at appropriate places in the text.

A bibliography, which the writer hopes is fairly complete, is presented at the end of the book. The reader may find this book easier reading if he is acquainted with the well-balanced elementary studies of Kemmerer and Day, the excellent studies of Burgess and Goldenweiser (now somewhat out of date) on the reserve system, and the very able studies of Reed and Hardy on the policies of the last ten years. The latter has appeared just in time to allow me to take some account of it. There are numerous special studies of some aspects of the problems under discussion, of which the outstanding is Riefler's remarkable study of money rates. I might also mention Watkins' able book on bankers' balances. Lest I have frightened the potential reader, I hasten to add that it is my hope and expectation that he will be able to profit from this study even though he is not acquainted with the above-mentioned books.

In this study I take into account developments, in so far as the relevant facts are available, up to the early part of 1933, and I have attempted to consider all literature appearing before November, 1932. It has been necessary to rewrite large parts of this book as a result of legislative changes and developments of 1932 and the early part of 1933, and at the last moment to add a final chapter on the crisis of February — March, 1933.

ACKNOWLEDGMENTS

OFFICIALS of the Federal Reserve System have been most patient in answering questions and putting material at my disposal, and I must mention in particular that excellent organization, the Division of Research and Analysis of the Federal Reserve Board, and Miss Elsie Rackstraw, the librarian of the Federal Reserve Board. It is my hope that I have repaid them in part by not being unmindful of the practical difficulties that confront a semi-public organization endowed with large powers.

This book has profited from the advice of Professors F. W. Taussig and Joseph Schumpeter, who are always interested in the work done by the young economists of Harvard. My former students, Miss Doris L. Benz and Paul Sweezy, read the entire manuscript with care, as did my colleague, Kenneth P. Kempton.

Miss Virginia Stone, who was my research assistant for several years, and Miss Katherine Hampson, of the Committee on Research in the Social Sciences (formerly in Economics), who prepared the charts and read the proofs, have contributed much to this book, as has A. P. L. Turner, Jr., to whose lot has fallen a very large part of the work required in preparing these volumes. Without his help this book would be far from completed.

The Committee on Research in the Social Sciences, by putting at my disposal the necessary funds, has enabled me to complete this work much sooner than would otherwise have been possible, and also to study some phases of the subject that otherwise would have been closed to me. Professor C. J. Bullock, the Chairman of that Committee, has been particularly helpful, and I appreciate the spirit in which its help has been extended through him.

To the Harvard University Press and in particular to Mr. J. T. Day and his excellent corps of assistants I am extremely grateful for the speed and care with which they put through a very difficult manuscript.

S. E. H.

CONTENTS

VOLUME I

DETAILED CONTENTS xxvii
Introduction
PART I
BANK RATES AND DISCOUNT POLICY
Introduction
CHAPTER I. THE PENALTY RATE - HISTORICAL
 Introduction, 36 An Auspicious Beginning, 38 The Threat of Penalty Rates, 1919-20, 40 The Failure to Enforce Penalty Rates, 1921-31, 43
CHAPTER II. PENALTY RATES - INTERPRETATION 49
 What Is a Penalty Rate? 49 Uniform and Penalty Rates, 51 Rediscounting at a Profit, 52 Penalty Rates — Conclusion, 56
CHAPTER III. EFFECTIVENESS OF BANK RATES 64
 Introduction, 64 Objectives, 64 Relations to Member Banks, 67 Changing Attitude toward the Use of the Bank Rate, 70 Conclusion, 76
CHAPTER IV. OBJECTIVES
 Introduction, 79 Protection of Reserves, 81 Stabilization of Business Conditions, 84 Stabilization of Prices, 86 Accommodation of Commerce and Industry, 90 Adjustment of Credit to the Requirements of Trade and Industry, 97 Control, 99 Control and Rates, 103
9. Continuous or Emergency Operation? 108 10. Conclusion, 110

	•
A.	371
4	Y I

CONTENTS

CHAPTER V. STRUCTURE OF RATES WITHIN THE FEDERAL RESERVE DISTRICT	112
 Early Development, 112 Special Rates on Government Securities, 113 Commodity Rates, 115 Uniform Rates, 116 Rate Structure, 118 Progressive Rates, 120 Conclusion, 123 	
CHAPTER VI. UNIFORMITY OF BANK RATES IN THE UNITED STATES	125
 Theory and History of Uniformity, 125 Uniformity and Control — Reserve Banks or Board? 132 Conclusion, 140 	
DADÆ II	
PART II	
OPEN MARKET OPERATIONS	
CHAPTER VII. OPEN MARKET OPERATIONS — HISTORY	145
 Early Policies — Hesitation, 145 More Positive Policies — 1916 and 1917, 147 Evolution of a Policy, 148 	
CHAPTER VIII. OPEN MARKET OPERATIONS—OBJECTIVES AND SIGNIFICANCE	155
 Introduction, 155 1922-23 — Discussions and Policy, 159 The Relation of Open Market Operations and Member-bank Indebtedness, 161 	
 Member-bank Indebtedness, Gold Movements, and the Ineffectiveness of Open Market Operations, 164 Conclusion, 169 	
CHAPTER IX. OPEN MARKET OPERATIONS — CONCLUDED	175
 Open Market Operations and Rediscounts, 1922-25, 175 Open Market Operations and Rediscounts, 1927-29, 180 Supply and Demand for Reserve-bank Credit, 185 Conclusion, 188 Keynes on Open Market Operations, 192 	

PART III

MORAL SUASION

Introduction	199
CHAPTER X. METHODS 1. 1918-20, 201 2. 1920-21, 205 3. 1922-26, 207 4. 1929, 209 5. Summary, 213	201
CHAPTER XI. EXAMINATIONS, INFORMATION, AND THE LENDING POLICIES OF MEMBER BANKS	215
 Authority of Reserve Banks over Examinations, 215 Attempts to Obtain More Information, 1919-22, 216 Continued Efforts in Later Years, 218 	
CHAPTER XII. THE USE OF FEDERAL RESERVE FUNDS	221
 Introduction, 221 1914-18 — Difficulties Underestimated, 221 1919-20 — Realization of the Difficulties Involved, 222 Admission of Inability to Identify Use of Reserve Funds, 224 The Position in 1928-29, 226 Cheap Money for Trade and Dear Money for Speculation, 228 Conclusion, 230 	
CHAPTER XIII. MORAL SUASION OTHER METHODS	232
 Essential and Non-essential Loans, 232 Accommodation to be Granted without Discrimination, 233 Continuous Borrowers, 237 	
CHAPTER XIV. CONTROL OF INTER-BANK RELATIONS	240
 Correspondent Relations and Reserve Bank Accommodation — The Facts, 240 Opposition to the Use of Reserve Funds Obtained by Indirect 	
Means, 248 3. Attitude of Reserve Authorities toward Correspondent Relations and	
the Problem of Inter-bank Borrowing, 250 4. Conclusion, 254	
CHAPTER XV. MEMBER-BANK BORROWING	256
 Why Do Member Banks Borrow? 256 Member-bank Indebtedness and Reserve Policies, 261 	·

PART IV

ELIGIBILITY AND ACCEPTABILITY

Introduction	269
CHAPTER XVI. LIMITED SIGNIFICANCE OF ELIGIBILITY RULES . 1. Early Concessions, 272 2. Liberalization of Eligibility Rules, 274 3. Bankers' Acceptances, 280 4. Advances on Promissory Notes and Repurchase Agreements, 286	272
CHAPTER XVII. THE FAILURE OF ELIGIBILITY	291
 Security, 291 Condition of the Rediscounting Bank, 294 Elasticity in the Formulation of Regulations, 296 The Quantity of Eligible Paper, 300 The Right to Rediscount, 304 	
Conclusion	312
PART V	
ACCEPTANCE POLICY	
CHAPTER XVIII. ACCEPTANCE POLICY 1. Introduction, 317 2. Acceptance Policies, 317 3. Rates on Acceptances, 322 4. Problem of the Distribution of Acceptances and Other Earning Assets among Reserve Banks, 327 5. Conclusion, 333	317
PART VI	
GOLD AND CURRENCY	
CHAPTER XIX. GOLD POLICY, 1914-20 1. Concentration of Gold Supplies, 34r 2. Cooperation of the Treasury, 346 3. Control of Gold Movements, 347 4. Attitude of the Board toward Free Gold Movements, 350 5. Conclusion, 351	341

CONTENTS	xix
CHAPTER XX. GOLD POLICY, 1921-32 1. The Clash with the Treasury over Gold Payments, 353 2. A Gold Policy, 1922-24? 358 3. Primary and Secondary Expansion, 361 4. Conclusion, 369	353
CHAPTER XXI. RESERVES OF RESERVE BANKS 1. Methods of Allocating Reserves — 1914-18, 372 2. Post-War Inflation and Economies, Real and Unreal, 373 3. A More Elastic Reserve System? 375 4. Economies and Free Gold, 377 5. Conclusion, 381	372
CHAPTER XXII. RESERVES OF MEMBER BANKS 1. Introduction, 383 2. Classification of Cities for Reserve Purposes, 383 3. Proposals for Reform, 1927-29, 384 4. Till Money, 385 5. Deductions from Demand Deposits, 388 6. Saving Deposits, 390 7. Conclusion and the Report of the Committee on Member Bank Reserves, 391	383
CHAPTER XXIII. NOTE POLICY 1. Introduction, 397 2. Development of a Policy, 1914-20, 397 3. Vacillation, 1920-24, 401 4. The Problem of Collateral, 403 5. Consolidation of Note Issue, 407 6. Conclusion, 410	397
Chapter XXIV. Foreign Exchange Management	413
A Brief Summary	421

VOLUME II

Introduction	435
THE PROBLEMS, 435 Bank Rate Policy, 1927-29, 436 Loans on Account of Others, 439 Member-bank Indebtedness and the Investment Policies of Banks, 440 Credit and the Needs of Trade, 442 Open Market Policy, August-December, 1927, 443 Open Market Policy, January-August, 1928, 445 Open Market Policy, September-December, 1928 — A Disastrous Reversal, January-September, 1929 — The Failure of Moral Suasion, 450 Summary of Discussion of Movements of Deposits, 452 Deposits and Banking Policy, 453 Security Loans, An Interpretation of the Figures, 454 Bankers' Balances and the Problems of Speculation and Reserves, 458 Absorption of Credit in Speculative Security Loans, 460	448
THE AFTERMATH, 1929-33, 463 Obstacles to Fulfillment of Open Market Objectives, 463 A Survey of Open Market Operations, 463 Bank Rate and Open Market Operations — A Conflict? 464 Acceptance Policy and Relations with Foreign Countries, 465 The Process of Liquidation, 465 October, 1929-May, 1932 — An Interpretation of Monthly Figures, 467 Recent Currency Legislation and Proposals; the Future, 467	
PART VII	
SPECULATION AND RESERVE POLICY, 1927-29	
CHAPTER XXV. DISCOUNT POLICY, 1927-29. 1. Current Opinion of Reserve Officials on Effectiveness of Rates, 471 2. The Failure of Bank Rate Policy, 1928-29, 473 3. Rate Policy and Europe, 477 4. Foreign Exchanges and the Attraction of Funds to New York, 480	471
CHAPTER XXVI. Non-banking Funds and Control	488
CHAPTER XXVII. MEMBER-BANK INDEBTEDNESS AND INVEST- MENT POLICIES OF MEMBERS	493
CHAPTER XXVIII. CREDIT AND THE NEEDS OF TRADE	499
 Credit and Trade, 499 The Concern of Reserve Authorities with Speculation and Higher Rates, 504 	

CONTENTS	xxi
CHAPTER XXIX. OPEN MARKET POLICY—THE FIRST PHASE, AUGUST-DECEMBER, 1927	509
 Contrast of 1924 and 1927, 509 Members Prefer to Remain in Debt, 513 	
CHAPTER XXX. OPEN MARKET POLICY AND THE MOVEMENT OF DEPOSITS, JANUARY-AUGUST, 1928	514
 The Failure of Open Market Policy, 514 Demand versus Net Demand Deposits, 517 Signs of Success, 518 	
 New York Banks Gain Deposits and Put the Burden of Rediscounts on Other Sections, 520 Demand and Net Demand Deposits Once More, 524 Conclusion, 526 	
CHAPTER XXXI. OPEN MARKET POLICY, SEPTEMBER-DECEMBER, 1928 — A DISASTROUS REVERSAL OF POLICY	528
 Market Rates and the Change of Policy, 528 New York Banks Remain in a Strong Position, 533 Market Rates, 537 	
CHAPTER XXXII. THE FAILURE OF MORAL SUASION, JANUARY—SEPTEMBER, 1929	539
 Open Market Operations, 539 Liquidation in New York and Moral Suasion, February-May, 540 The Failure of Moral Suasion, 546 The Movement in Deposits, 548 Debts and Market Rates, 551 	
CHAPTER XXXIII. A SUMMARY OF THE DISCUSSION OF THE MOVEMENT OF DEPOSITS	552
 The Gold Settlement Figures, 552 Statement of the Problem, 552 An Aspect of Gold Policy, 556 New York Banks and Their Deposits, 1928–29, 556 Brokers' Loans — Deposits and Cash, 558 	
Chapter XXXIV. Deposits and Banking Policy	561

The Significance of Movements in Deposits, 561
 A Statistical Explanation, 563
 The Problem of the Activity of Deposit Accounts, 563

5. New York City Banks, 566

4. Movements of Deposits between Member and Non-member Banks, 565

CHAPTER XXXV. SECURITY LOANS, AN INTERPRETATION OF THE FIGURES	569
 Significance, 569 A Criticism of the Figures of the Glass Committee, 571 An Interpretation of the Net Movements, 577 Advances by New York Banks, Foreign Banks, and Outside Banks, 581 	
CHAPTER XXXVI. BANKERS' BALANCES AND THE PROBLEMS OF SPECULATION AND RESERVES	585
 The Material, 585 Due from Domestic Banks and the Loss of Cash to Non-members, 586 State versus National Banks, 590 Certified Checks and Speculation, 591 Due to Banks (net) and Reserve Requirements, 592 	
A Note on the Absorption of Credit in Speculative Security Loans	596
 Keynes and Rogers on the Subject, 596 Credit is Absorbed? 599 The Point at Issue, 601 Security versus Brokers' Loans and Keynes' Bear Position, 602 Absorption and the Movement of Deposits to New York, 604 The Failure to Distinguish Demand from Net Demand Deposits, 605 Margins and the Accumulation of Deposits by Corporations, 607 Conclusion, 611 	
PART VIII	
THE AFTERMATH, 1929-33	
CHAPTER XXXVII. OBSTACLES TO THE FULFILLMENT OF OB- JECTIVES OF OPEN MARKET OPERATIONS	615
 Misgivings, 615 Policy and the Bond Market, 616 The Mechanism, 618 	
CHAPTER XXXVIII. A SURVEY OF THE OPEN MARKET OPERA- TIONS FROM OCTOBER, 1929 TO JUNE, 1932	626
 The First Large Operation, October, 1929-March, 1930, 626 A Lull in the Activities, 1930-31, 628 A Second Attempt, 1932, 631 	

CHAPTER XXXIX. RATE POLICY AND OPEN MARKET OPERA- TIONS — A CONFLICT?	632
 Introduction: Possibilities of a Conflict, 632 Rates and Open Market Policy, 633 The Problem of Uniformity Once More, 636 	
CHAPTER XL. ACCEPTANCE POLICY AND RELATIONS WITH FOREIGN COUNTRIES	639
 Buying Rates and the Distribution of Holdings, 639 Relations with Foreign Countries, 641 	
CHAPTER XLI. THE PROCESS OF LIQUIDATION, 1929-31	645
 All Banks in the United States, 645 Member versus Non-member Banks, 646 Member Banks: Classification of Loans and Investments, 647 Member Banks: New York City, Reserve Cities, and Country Banks, 6 	40
5. Inter-banking Relationships, 6536. Liquidation of Security Loans in October-November, 1929, 656	
CHAPTER XLII. OCTOBER, 1929-MAY, 1932. AN INTERPRETA- TION OF MONTHLY FIGURES	658
 Introduction, 658 The Immediate Results of the Crash: October-December, 1929, 661 Second Stock Market Boom and Collapse: January-June, 1930, 665 The Second Half of 1930: Liquidation and Monetary Disturbances, 668 Moderate Liquidation: January-May, 1931, 670 The Crisis: June-December, 1931, 671 Efforts to Stop the Liquidation: January-May, 1932, 676 	
CHAPTER XLIII. RECENT CURRENCY LEGISLATION, PROPOSALS, AND THE FUTURE	682
 Introduction, 682 Proposals to Stabilize Prices, 683 The Reconstruction Finance Corporation Act, 685 The Glass-Steagall Act, 687 The Banking Act of 1932, 690 Conclusion: 1913, 1932, and the Future, 695 	
CHAPTER XLIV. THE END OF LIQUIDATION?	699
1. The Operations of 1932 Successful? 699	
 Liquidation in 1932 as Compared with 1929-31, 703 Open Market Operations — One or Twelve Banking Systems? 706 	
4. Open Market Operations and Liquidation, 711	
S. CONCINSION, 712	

CONTENTS

PART IX

APPENDICES —	STATISTICAL	ANALYSIS
--------------	-------------	----------

A. Investment Policies of Reserve Banks	719
B. Gold, Reserves, Notes	761
C. Inter-banking Relationships	771
D. Deposits and Rediscounts and Miscellaneous Problems	782
Sources of Material for Statistical Tables	799
BIBLIOGRAPHY	803
 ADDENDUM. THE CRISIS: MARCH, 1933 I. Introduction, 825 Liquidation, 1932, 826 The Reconstruction Finance Corporation, 828 Remedial Legislation, 831 An Analysis of the Banking Condition on the Eve of the Crisis — Regional Movements, 836 Liquidation, December 28, 1932 — March 1, 1933, 840 The Reserve Banks and the Crisis, 844 Conclusion, 849 	825
T	0

LIST OF CHARTS

л.	THAFRING	ENT TOLICIES OF INCSERVE DANAS	
	Ia.	Reserve balances of member banks and reserve credit, 1921-31	720
	Ib.	Reserve balances of member banks and securities held by reserve banks, 1921-31	721
	Ic.	Reserve credit and securities held by reserve banks, 1921-31	722
	II.	Distribution of deposits, United States securities, and rediscounts among reserve banks, 1915-31.	724
	III.	Monthly earning assets of reserve banks	729
	IV.	Earning assets of Federal Reserve System and of each reserve bank: monthly average of daily figures, October, 1921-December, 1931 (10 parts)	733
	V.	Proportion of System's acceptances and deposits held by each reserve bank, May, 1915-December, 1931	754
	VI.	Acceptances held by reserve banks and reserve credit, 1915-31	758
	VII.	Acceptance holdings of reserve banks and market rate, 1919-30	759
В.	GOLD, F	Reserves, Notes	
	VIII.	Free gold of the Federal Reserve System, 1917-31	761
	IX.	Free gold of Federal Reserve System and of each reserve bank, 1927-31	763
	X.	Distribution of gold in the United States, 1915-31	765
	XI.	Reserve notes held by issuing banks, excess collateral, and gold and paper collateral held against notes by System, May, 1915–December, 1931	769
C.	INTER-BANKING RELATIONSHIPS		
	XIIa	Indebtedness of all member banks to reserve banks and correspondents, 1919-31 (First differences)	772
	XIIb	Indebtedness of all member banks to reserve banks and correspondents, 1918-31	773
	XIII.	Balances with other banks and borrowing of reserve city and country member banks, 1919-31	777

	•
YY	VI.
~~	7 4

CONTENTS

	XIV.	Borrowings of and balances with New York reporting member banks, 1919-31	778		
	XV.	Bankers' balances and loans on account of out-of-town banks on securities, June, 1927-December, 1931	779		
D.	DEPOSITS AND REDISCOUNTS AND MISCELLANEOUS PROBLEMS				
	XVI.	Member-bank deposits and rediscounts with reserve banks, 1927-31	784		
	XVII.	Demand deposits, and bills payable and rediscounts of member banks, 1927-31	788		
	XVIII.	United States deposits and borrowing of national banks, 1917-22	790		
	XIX.	Public deposits with national and reserve banks, 1918-22.	79 I		
	XX.	Deposits and brokers' loans of reporting New York banks, July, 1927-June, 1931	794		
	XXI.	Gold, brokers' borrowings from private banks, etc., and acceptances held for foreign correspondents, 1927-31	795		
	XXII.	Distribution of borrowing at reserve banks, 1917-30	796		