BANKING STUDIES

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By Members of the Staff

Board of Governors of the

Federal Reserve System

Published August 1941

COMPOSED AND PRINTED AT THE
WAVERLY PRESS, INC.
BALTIMORE, U. S. A.

PREFACE

The seventeen papers in this book were written by members of the staff of the Board of Governors of the Federal Reserve System, under the editorial supervision of a staff committee. They are published in the hope that such light as they cast upon the past and present in the field of money and banking may help to illuminate the approach to the future. The purpose has been to present in brief form and simple language the substance of a large mass of information bearing on banking and monetary problems that the Federal Reserve System has accumulated during its quarter century of operation, and particularly during the past decade.

Although in a field as controversial as this it is impossible for an author to remain entirely neutral, the aim throughout has been to present the material in an objective and impartial manner. The seventeen papers cover a wide range, and therefore inevitably traverse ground that is beset by controversy and sharp differences of opinion. The authors of the studies have specialized in the particular subjects of which they write, and in the preparation of their papers they have sought to present facts and not opinions. These studies, while assembled in one volume, were not intended to be a series of related chapters of a book, but to be, as the title indicates, separate studies of some of the important aspects of this country's banking and monetary system and of the role that it plays in the functioning of the economy.

The authors and editors are indebted to a number of economists, bankers, and other students to whom early drafts of the papers were submitted for comment and criticism. Particular thanks are due to Robert B. Warren and to Donald B. Woodward for their help in organizing the studies into a series which it is hoped, not-

withstanding separate approaches by individual authors, nevertheless has some features of an organic whole. Acknowledgment is also made to Marie Butler Leven for editing the studies and preparing them for publication.

It is hardly necessary to add that the points of view and the distribution of emphasis in the studies are those of the authors, and do not necessarily reflect the views of the Board of Governors or of the Editorial Committee.

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Washington, D. C.
August, 1941.

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HISTORICAL INTRODUCTION

There are four principal events which may conveniently be taken as dividing American banking history into periods. The first was establishment in 1782 of the Bank of North America, the first bank in the United States. This occurred at the end of the Revolutionary War and a few years before the formation of a Federal Government under the Constitution.

The second event was adoption in New York State of the Free Banking Act of 1838, a statute which profoundly influenced subsequent American banking practice, banking supervision, and the banking structure as a whole. Close to this event in time were the discontinuance in 1836 of the Bank of the United States as a Federal institution, the panic of 1837, the original establishment of the Independent Treasury System in 1840, and enactment of the Louisiana Banking Law of 1842.

The third event was establishment of the national banking system in 1863. This coincided roughly with discontinuance of note issue by State banks, the shift from bank notes to bank deposits, the War between the States, and the beginning of a new phase of industrial and westward territorial expansion.

The fourth event was establishment of the Federal Reserve System in 1913. The System's operations began in 1914, the year war broke out in Europe. The period from then to the present, 1940, has been crowded with developments whose course has not yet been concluded and whose significance can not yet be appraised.

FORMATION OF THE FIRST BANK TO AUTHORIZATION OF FREE BANKING, 1782–1838

In a rudimentary way, banking functions were performed in this country before there were any banks and before there was any banking legislation. It was performed by colonizing companies, colonial governments, merchants, and others who were in position to extend credit. The first bank in a modern sense was the Bank of North America, established in Philadelphia in 1782.

Changes in Banking Practice. Aside from governmental connections, the Bank of North America and other banks formed during its early years were distinctly commercial. They grew out of the needs of merchants who hitherto had lent to one another—a merchant temporarily in funds advancing them for short periods to others who had payments to make and at other periods becoming a borrower himself. From this practice of lending and borrowing among themselves, it was a direct step to pooling their several stocks of cash into one for the formation of a bank from which each might borrow at greater convenience. Robert Morris, Financier of the Revolution, who was a prime mover in the organization of the Bank of North America, spoke of their "clubbing together" their funds. The loans that they had made to one another as merchants were necessarily short-term loans, secured by goods in process of exchange and liquidated at completion of the sale of the goods. They were in the strict sense short-term, self-liquidating, commercial advances. It was obligations of this type—not counting loans to Government—that filled the portfolios of the first banks in this country and that for a long time remained the specialty of certain banks in commercial centers.

Conditions in these few centers were by no means typical of American conditions as a whole, however. Between the seaboard cities and beyond them to the advancing frontier was a growing population bringing more and more land under cultivation, developing mineral resources, establishing foundries and mills. These pursuits absorbed larger numbers of the expanding population than did mercantile pursuits. Banks increased in number in response to the insistent demand for credit to which the abundant opportunities offered by the country gave rise, but they had no other choice than to lend on terms suitable to the condition and prospects of their customers. The interests of these customers were not predominantly commercial but agricultural and industrial. The demand for long-term credit became greater than the demand for short-term credit and made it impossible for most banks to confine themselves to the mercantile banking tradition. This tradition continued for more than a century to have great weight in banking theory and in banking legislation, but practice persistently diverged from it.

In early American banking the process of extending credit resulted in an enlargement of bank note circulation and not, as at present, in an enlargement of deposits. When loans were made, the borrowers customarily received the amount in bank notes. These notes, transferred from hand to hand, constituted the greater part of the public's means of monetary payment. Today when banks make loans (or purchase securities), they enter the amount in the deposit accounts of the borrowers (or sellers of the securities) and the expansion of bank credit becomes reflected in an enlarged volume of bank deposits. These deposits, transferred by check from hand to hand, constitute the greater part of the public's means of monetary payment.

Bank notes and bank deposits are to be regarded as interchangeable forms of bank liability, differing obviously from one another in certain respects yet essentially alike in origin and in use. It is sometimes the difference that is significant and sometimes the resemblance. Note issue was the outstanding function of banks in the earlier periods of American banking history; the deposit function became outstanding in the later periods. Notes are no longer issued by privately managed banks.

The First Bank of the United States. In 1791 the Federal Congress chartered the first Bank of the United States, an institution in which the Federal Government held stock and which acted as fiscal agent of the United States. The Bank continued in operation until 1811. The large scale of its operations, conducted in the leading cities of the country, distinguished it from the State banks which were its local competitors and mostly of much smaller size.

The Bank was opposed by many on the ground that Congress had no constitutional authority to charter it. This opposition reflected also the self-interest of the State banks. Its Federal charter was not renewed; its head office was sold and reorganized as a private banking house, and its various branches were either liquidated or became local banks.

The Second Bank of the United States. In 1816 Congress enacted another charter creating the second Bank of the United States. The second Bank encountered intense opposition, notably upon constitutional and political grounds. Its constitutionality was

affirmed by the Supreme Court in 1819 and again in 1824, but these decisions did not end the controversy. The act of Congress renewing the charter was vetoed and in 1836 the Bank discontinued as a Federal institution. It sold the business of its branches and continued the business of its head office in Philadelphia under a Pennsylvania charter.

State Banks. Controversy as to the constitutionality of a bank charter granted by the Federal Government was accompanied by controversy as to the constitutionality of bank charters granted by the States. It was contended that since the States were bound by the Constitution not to "coin money" or issue "bills of credit," they had no legal power to charter banks for the purpose of issuing circulating notes. In 1837, however, the Supreme Court affirmed the constitutionality of State bank charters.

For the greater part of the period from the establishment of the Bank of North America in 1782 to expiration of the Federal charter of the second Bank of the United States in 1836, there was one bank under Federal charter, while the number of banks under State charter grew to about 700. The notes of State banks constituted a large if not the larger part of the money in circulation, yet the Federal Government exercised no jurisdiction over them and itself issued only the coined currency.

The charter powers, the control, and the functions of the State banks frequently differed in important respects from what they are today. A State was itself sometimes sole proprietor of a bank, or part owner of one or more; and banks were frequently chartered for the main purpose of financing some enterprise of a public nature, for example, a turnpike, a canal, a railway, or a toll bridge. The property itself or a lien upon it would be one of the bank's principal assets, and against this and other assets circulating notes would be issued. This common method of financing public works had its worst abuse in the period culminating in the panic of 1837.

Unincorporated Banks. Meanwhile, not all banking was corporate. There were numerous unincorporated banking houses owned by individuals and partnerships, and commonly called "private" banks because they had not the association with the Government that corporate charter implied. Being without corporate charters,

they might be at a disadvantage in putting their notes into circulation; in fact, some State legislation expressly forbade their doing so. The right to issue notes was not indispensable in the operation of a bank, however, especially in the commercial centers where deposit banking was further developed than elsewhere. Various considerations doubtless made many bankers prefer to operate under common law without a charter. Such unincorporated banking houses seem as a class to have been no less reputable and sound than were the incorporated banks taken as a class.

The New York Safety Fund Act, 1829. In 1829 New York adopted a measure—the Safety Fund Act—which sought to protect noteholders by requiring banks to contribute to a fund for the redemption of the notes of banks that failed. The protection offered was similar in principle to present day deposit insurance, which came a century later. The Safety Fund was in existence about forty years and then was dissolved. Various conditions were adverse to its success, among the most important being defective provisions in the law, which, however, were subsequently remedied by amendment. The scope of the fund was gradually diminished by decline in the relative importance of note issue, and by the rise of the "free banks," to whose notes it was not applicable. Despite these things, the fund was a significant and influential experiment in banking control.

The New York Free Banking Act, 1838. During the entire period up to 1837–1838 a bank charter was procurable only by a special legislative act, and this gave semi-monopolistic advantages to banks already in existence. Such a situation did not accord, however, with the vigorous democratic spirit of the times nor with the aggressive spirit of enterprise stimulated by the rapid growth of population, the rapid extension of settlement westward, and the rapid development of rich natural resources. While the borrowing public felt dissatisfaction with restrictions on the number of banks from which credit might be obtained, the public as creditor felt parallel dissatisfaction with the frequent failure of banks to honor their circulating notes. Banking was found to be too rigid in some respects and too weak in others. In 1838 New York adopted a measure—the Free Banking Act—aimed at a radical improvement

in both directions.[1] It was an act authorizing any one to procure a charter and engage in the banking business upon compliance with certain general conditions without obtaining a special legislative act. In effect, it changed corporate banking from a monopolistic privilege to a business open to all. It provided that banks pledge securities with the supervisory authorities against their circulating notes. It reflected the popular reaction against the privileged character of special charters, the desire for greater opportunity to invest in bank stock, the pressure for more liberal and abundant supplies of bank credit for economic expansion, and the need for a better circulating medium.

AUTHORIZATION OF FREE BANKING TO THE NATIONAL BANK ACT, 1838–1863

The free banking movement, starting with the New York Act of 1838, was regarded by both its advocates and its opponents as a movement to liberalize credit. It was intended to increase the number of banks and release credit from so-called monopoly control. Gallatin said that the New York Act bore "internal evidence that it was prepared by speculators."

Abuses and Restrictions. Free banking spread rapidly to other States. In the West it degenerated into "wildcat" banking; banks were established in remote, inaccessible places where it was alleged that only wild cats throve and where there was little chance that circulating notes would find their way for redemption. Speculators and swindlers took advantage of frontier ignorance of investment securities and made it a regular practice to purchase bonds of little worth, pledge them in exchange for their face value in circulating notes, and vanish. There arose an intense opposition to banks, for which free banking abuses were only partly responsible. On one ground or another, hostility to incorporated banks and to their issuance of notes had always been active. The State constitution of Iowa prohibited them from 1846 to 1857, when banking was made a State monopoly. The constitution of Texas, adopted in 1845, forbade the creation of any corporate body "with banking or dis-

[1] While free banking legislation was still pending in New York, a measure based upon it was enacted in Michigan in 1837.

counting privileges." In Illinois a movement to prohibit banks failed in 1847 by only a narrow margin. At various times, legislation in still other States reflected a distrust of banks and in particular of their note issue function, though neither the scope nor the effect of the measures is in all cases clear.

Indiana, Ohio, and Iowa (after abandonment in 1857 of the prohibition of banks) maintained a system of branch banks comprising as a whole what was known as the "State Bank," the branches being limited in number and operating to some extent as independent institutions. Eventually, these States, as well as those that prohibited banking, adopted free banking statutes. These statutes set the pattern of banking legislation, Federal and State, still in effect. The "freedom" to engage in banking as originally contemplated by these statutes, however, has been greatly limited. Administrative authorities, who had no power in the early days of free banking to refuse charters, now generally have the responsibility of issuing charters only in those cases where the proposed bank has competent management and reasonable prospects of successful operation.

Bank Reserves. The first legislative requirements as to reserves were enacted by various States in 1837, 1838, and 1839. They applied to circulating notes alone. The New York Free Banking Act required reserves of 12½ per cent against notes, but the requirement was repealed in 1844. In 1842, Louisiana adopted banking legislation which was strikingly at variance with the free banking principle. It made no provision for an increased number of banks. It required each bank to maintain cash assets equal to one-third of its combined note and deposit liabilities and liquid assets equal to the other two-thirds. These liquid assets were to comprise promissory notes and other obligations maturing in not more than three months and not renewable. Only capital funds of banks might be invested in long-term obligations.

When in the panic of 1857, the banks of New Orleans stood out among the few in the country that did not suspend, the reserve requirements under which they operated received much favorable attention in the North. In 1858 Massachusetts adopted a 15 per cent reserve requirement against notes and deposits. Although

many banks voluntarily maintained conservative reserve ratios, it was only in Louisiana and Massachusetts that there were statutory reserve requirements relative to deposits as well as notes when the National Bank Act, with such requirements, was adopted in 1863.

Meanwhile an important change had come about in the composition of reserves. Originally each bank's reserves comprised the specie in its own vaults. Later these reserves came to include funds which a bank might have on deposit with another bank in a financial center. These funds constituted what are still known as correspondent balances. They tended to concentrate in New York City, where they became an important factor in the money market and by the same token subject to the conditions governing that market.

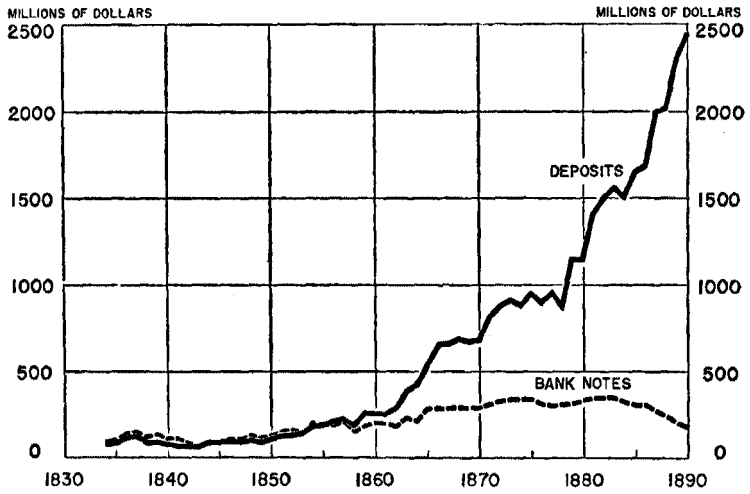
Bank Notes and Deposits. During the period between the inauguration of free banking under State law in 1838 and its establishment under Federal law in 1863, bank deposits achieved precedence over bank notes. This development, which has already been referred to, is traced in the accompanying chart. In 1834, when the record begins, and for most of the twenty years following, the amount of bank notes in circulation exceeded the amount of bank deposits. In the years preceding, this excess of notes over deposits had probably been much greater. In 1855 deposits permanently took the lead. After 1875 bank notes began to decline in volume, their place being taken increasingly by other forms of currency and by bank deposits. On August 1, 1935, the power of privately managed banks to issue notes came to an end with redemption of the only remaining Government obligations authorized to be used as security for national bank notes.

This development reflects a great change in the character of economic life. When American banking began, monetary transactions had relatively less importance than they have in modern economic life. Goods changed hands less frequently and were less subject to transport from place to place. But with the development of large-scale enterprise and of improved means of transportation and communication, the volume of transactions and the number of out-of-town payments increased. Deposits subject to check came to be used instead of currency as more convenient for the bulk of monetary payments. Concurrently, as already explained, the pro-

vision of bank credit in the form of deposits instead of circulating notes became the principal function of banks.

Independent Treasury System. When in 1836 the Bank of the United States ceased to be a Federal institution and to act as fiscal agent of the Treasury, it became necessary to devise new means of decentralizing the Treasury's transactions with the public. In an attempt to meet this need without recourse to the services of banks, which the Administration distrusted, the Independent Treasury System was authorized—first but abortively in 1840, later and

BANK NOTES AND DEPOSITS[a]



[a] For data, see Table 1, p. 417.

permanently in 1846—and subtreasuries were set up in different parts of the country. This arrangement contemplated the retention of all Government funds in Government vaults and not in banks. But the constant physical transfers of cash that this policy entailed were costly and inconvenient. Consequently the idea of completely divorcing the Treasury from the banks began to be abandoned before the Civil War, and, while the subtreasuries were retained, the use of banks was resumed. The Independent Treasury System was maintained in form for three quarters of a century before final transfer of subtreasury functions to the twelve Federal Reserve Banks in 1920.

The National Bank Act, 1863. Even after bank notes fell behind bank deposits in volume, they continued to constitute the greater part of the paper currency in use and about half the total circulating medium. The paper currency used by the public, that is, comprised mainly the issues of about 1500 banks, operated under the jurisdiction of the several States. Senator Sherman of Ohio described the banking and currency situation in an address to the Senate, January 8, 1863.

> I next stated the objections to local banks. The first was the great number and diversity of bank charters. . . . We had every diversity of the bank system in this country that has been devised by the wit of man, and all these banks had the power to issue paper money. With this multiplicity of banks, . . . it was impossible to have a uniform national currency, for its value was constantly affected by their issues. There was no common regulator; they were dependent on different systems. . . . There was no check or control over these banks. There was a want of harmony and concert among them. Whenever a failure occurred . . . it operated like a panic in a disorganized army. . . .[2]

Senator Sherman and Secretary Chase of the Treasury proposed that the Federal Government enact a general banking measure, based mainly on the banking laws of New York and Massachusetts, so that the circulating notes issued by banks under Federal charter and secured by Federal obligations might replace State bank notes as the country's circulating medium.

With enactment in 1863 of this legislation—subsequently known as the National Bank Act—the Federal Government again assumed banking jurisdiction, which it had temporarily assumed twice before in chartering the first and second Banks of the United States. It did not now defer to the States. The new act aimed at bringing all bank charters under Federal authority. "The national banks," Sherman told the Senate, "were intended to supersede the State banks. Both can not exist together. . . ." To this end, in 1865, a prohibitive tax was imposed on State bank notes. As a result, the majority of State banks were replaced by national banks, but some being banks of deposit only were unaffected by the tax and continued under their State charters.

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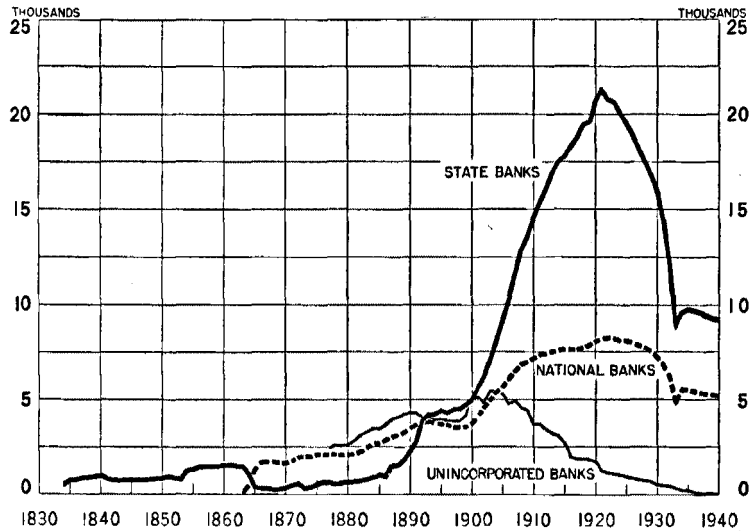
[2] John Sherman, *Recollections of Forty Years*, pp. 236–37.

THE NATIONAL BANK ACT TO THE FEDERAL RESERVE ACT, 1863–1914

For about thirty years following establishment of the National Banking System, national banks were more numerous than State banks, as shown in the accompanying chart. In 1892 State banks became the more numerous and have remained so ever since.

This development was possible because the provision of bank credit in the form of deposits subject to check, which was open to

COMMERCIAL BANKS IN THE UNITED STATES[a]



[a] For data, see Table 2, p. 418.

State banks, became of far greater importance than the provision of bank credit in the form of circulating notes, which was open to national banks only. Moreover, while the right under national charter to issue notes became in practice almost negligible, there were certain substantial rights under State charter which national charters did not convey. In the rural West, the laws usually permitted State banks to organize with small capital and to make real-estate loans. In the East, large banks found State charter attractive because it authorized them to act as trustees. Some States permitted the operation of branches. Some had no organized

supervision of banks and some had very little. Taking into account these varying advantages and disadvantages of State charters and national charters, bankers might choose whichever seemed to offer them the most. In the majority of cases they chose State charters.

In the early years of the national banking system, the number of incorporated banks (State and national combined) and of unincorporated banks seems to have been about equal. After 1892, unincorporated banks became less numerous than State banks and after 1905 less numerous than national banks. This development reflected the fact that advantages of the corporate form of organization prevailed for banking as for business enterprise in general. Incorporation limited the proprietors' liability, it facilitated investment by numerous participants with small holdings as well as large, and it facilitated the raising of more capital than was ordinarily possible for individual proprietors. Furthermore, incorporated banks, because they had a definite legal status and were subject to restrictions and supervision, had in general a competitive advantage over unincorporated, or "private," banks. Under these conditions, the number of unincorporated banks ceased to grow as fast as the number of incorporated banks and for many years now has steadily declined.

Besides incorporated and unincorporated banks there must be mentioned the large number of diverse institutions that are also engaged in savings, lending, and investment and that to a greater or less degree, therefore, are competitors of banks. These are probably more numerous and important now than ever before. They include older types of corporations mostly under State charter, such as insurance companies, savings and loan societies, building and loan associations, and in more recent years finance companies and production credit corporations.

New Approach to Banking Problems. During the first hundred years of American banking, the problems involved in banking and currency were repeatedly approached and decided in a spirit of partisanship. In the latter part of the nineteenth century, the conflict, so far as jurisdictions were concerned, gave way to compromise, and the lasting result was a complex of banking jurisdiction and banking legislation. It was commonly recognized that the

banking system was weak and inefficient. Credit was at times extended carelessly, and at other times, when most needed, became unavailable. It might be abundant and cheap in financial centers while unreasonably scarce and dear in agricultural regions. The machinery for currency supply would break down under strain. Bank suspensions were common and in successive panics or crises had been epidemic. At the same time the Treasury's operations were accommodated to the banking situation with difficulty, the Independent Treasury System being a sort of fifth wheel that gave the Treasury no independence and gave banks no protection from the deflating and inflating effect of the Treasury's collections and disbursements.

In the last decade of the nineteenth century, these defects in the banking and currency situation began to receive more scientific attention from economists, bankers, and legislators than ever before, and a concerted effort was made to work out constructive reforms. As a result, three principal changes were advocated that in the light of subsequent experience are of most interest. One was that branches be more generally authorized so that banks of large size might maintain offices in places not able independently to make adequate credit available at reasonable rates. Another was that a more elastic currency be provided, so that the volume of money in circulation might be responsive to changes in the public demand. Another was that central banking facilities be provided, so that excessive expansion and contraction of bank credit might be avoided.

The first of these suggestions—that small communities be served by branches of large banks—encountered opposition from bankers who feared that small banks would be put at a competitive disadvantage with large ones. Nevertheless over a period of time both Federal and State laws have been liberalized in this respect and maintenance of branches under various restrictions has more and more been authorized.

The suggestions with respect to an elastic currency and central banking facilities, after consideration in and out of Congress for about twenty years, resulted eventually in adoption in 1913 of the Federal Reserve Act. The act provided for the creation and absorption of reserve funds in accordance with the credit and currency

needs of the public and the ability of banks to meet those needs. This is the essential function of a central banking organization.

Background of the Federal Reserve System. American banking experience had already afforded many illustrations of the need of a reserve or central banking organization and at least a few conspicuous examples of the improvisation of central banking functions in emergencies. These need to be reviewed as part of the background of the Federal Reserve System; they center around the Bank of the United States, the Suffolk Bank of Boston, the correspondent relationship, the clearing house, and the United States Treasury.

The Bank of the United States as a Central Bank. In 1817, when the second Bank of the United States was organized, the majority of banks were not redeeming their circulating notes and had not been doing so for some time. This reflected an unsound credit condition. The paper money of the country was current at varying discounts and the fiscal operations of the Government as well as the transactions of private business were impeded. The Treasury Department had made various efforts to mend the situation, but Secretary Dallas had reported to Congress that formation of a Federal bank was "the only efficient remedy for the disturbed condition of our circulating medium." Promptly after its organization, the Bank of the United States drew up an agreement with the State banks by which they bound themselves to resume redemption of their notes in coin, and it bound itself to discount for them.

The Bank's performance of this central banking action was facilitated by its size, its close association with the Government, for which it was fiscal agent, and the fact that it stood apart from other banks and could, if necessary, exert pressure upon them to meet their obligations.

The Suffolk Bank of Boston as a Central Bank. The Suffolk Bank of Boston, a State chartered bank in operation from 1818 to 1858, performed a similar function by different means. The Bank of the United States customarily maintained a *creditor* relation toward other banks as a means of regulating their note issues—it accumulated their circulating notes and demanded payment. The Suffolk

Bank, on the other hand, cultivated a *debtor* relation. It arranged for banks to maintain balances with it to which their notes might be charged when received. Banks that did not maintain such balances were called on to redeem their notes in coin. Many if not most New England banks chose to maintain the balances and appreciated the advantage of the arrangement. The Suffolk Bank thus exercised an effective regulatory power. If it believed expansion was justified, it could lend to its banks for replenishment of their balances; if it felt expansion was unsound, it could refuse to lend. Its powers of restriction were much greater than its powers of expansion, however.

The Correspondent Relationship. The correspondent relationship is almost as old as banking itself in this country. Banks in outlying places soon found it convenient or necessary to maintain balances with banks in financial and commercial centers, and the city banks found it profitable to hold such balances. The balances might be drawn on for currency by the country banks, for the payment of checks, for the purchase of investments, and for monetary transfers at the convenience of bank customers.

The importance of the correspondent relationship became greatest in the latter part of the nineteenth century, when bank liabilities were taking the form of deposits rather than circulating notes, when the use of checks was growing, when economic activity, with new means of transportation and communication, was becoming nation wide as well as local and regional. Because of its practical importance, the correspondent relationship received statutory recognition; both national and State banks outside of certain large cities were permitted to count, as a portion of their legal reserves, the balances they kept on deposit with city correspondents.

For many years—until the payment of interest on demand deposits was forbidden by law in 1933—the city correspondent banks paid interest on the reserve funds deposited with them. These funds found active employment in the New York call-loan market, which became the central reservoir of the country's bank reserves. Small banks kept their correspondent balances with larger banks in cities of intermediate size, and the latter kept their own

correspondent balances in New York banks. Under these conditions the volume of reserves of the New York City banks became a money market index of national significance.

An important feature of the correspondent relationship was the understanding that country banks might borrow from their city correspondents when their balances became inadequate, either because of currency requirements or because their customers were making heavy payments by check. This arrangement worked satisfactorily so long as relatively few country banks wanted to borrow. When they all wanted to borrow at once, the case was different.

Every summer, for example, the banks in agricultural regions had to draw on their reserve balances for funds with which to finance the crops. This made it necessary for many of them to borrow. The currency which the city banks had to supply constituted their own reserves, and the reduction of these reserves curtailed their lending power. It made them not only less able to meet the demands of their country correspondents but less able to meet the demands of their local borrowers in New York City.

The city banks might do their best to meet the responsibilities of a national money market, but there was one essential power they did not have. They could not *create* reserve funds. They could and on occasion did engage funds abroad for the replenishment of the American money market, but they had no powers adequate to meet the general demand that a market must sustain when it becomes the central reservoir of a nation's bank reserves. What was needed was a power to *expand* reserves. For the banks of the country as a whole there was a relatively fixed aggregate volume of reserve funds—which in 1906 was about 3 billion dollars—comprising gold and other lawful money. The banks of the country had to get along with this amount whether or not it was adequate to meet all needs.

In the panic of 1907 it was not adequate. Faced by an unusual demand upon their reserves and by an inability to procure more, the city banks in a natural impulse of self-preservation froze on to what they had. The result was like a sudden paralysis. Banks ceased to function normally. Each held grimly to the reserves it had, hoping thereby to maintain its own solvency. There was no

lender of last resort to which it might go for replenishment of its reserves. The correspondent relationship provided for the concentration and distribution of existing funds, but not for the creation of new and additional ones.

The Clearing House. The clearing house—another important factor in the development of present-day central banking powers—is a voluntary association of neighboring banks for the primary purpose of clearing the checks each receives upon the others. The oldest clearing house in the United States is that of the New York City banks, established in 1853.

It was a basic expectation that each clearing-house bank be able to pay instantly the checks drawn on it. For collective protection, therefore, the clearing house usually kept informed of the condition of each of its members and might impose drastic discipline upon them. It early became apparent, however, that inability to make prompt settlement might arise from general conditions which individual banks could not control—that is, from a general insufficiency of reserve funds.

As early as the crisis of 1860, the New York City clearing house took action which in subsequent crises was frequently repeated. It provided its members with certificates, issued in exchange for promissory notes and other obligations, which might be used in settlement of indebtedness to the clearing house. The effect of this action was to enlarge the existing volume of reserve funds. The new funds were not themselves legal reserves, but they spared the use of legal reserves.

The more important subsequent uses of clearing-house certificates occurred in 1873, 1890, 1893, and 1907. The certificates were not always, as at first, confined to use in settlement of clearing-house obligations; in some crises they were issued to circulate among the public as currency. They were so frequently resorted to in crises that they came to have a recognized place in monetary policy. Their issue was legalized in 1908 in the Aldrich-Vreeland Act, the terms of which expired after the Federal Reserve Act came into effect.

The Treasury. Another important factor in the evolution of the central banking function is the United States Treasury, which by

its operations frequently gives occasion for exercise of central banking powers and at times has exercised such powers itself. The disturbing effect of Treasury operations on banking conditions was recognized from the very beginning, and the policy was adopted of tempering the effect as much as possible—by avoiding, for example, sudden transfers of Treasury funds. The Treasury sometimes went further and sought by the transfer and deposit of funds to relieve a banking situation for which its operations were not responsible. With establishment in 1846 of the Independent Treasury System, which sought to diminish the Treasury's contacts with banks, this policy of accommodation was for a time practically reversed.

As already indicated, the Treasury's need of banks very soon impelled serious modification of the theory of independence, and by the time of the Civil War the Treasury was again borrowing from banks, depositing its funds in banks, and utilizing the facilities of banks in making payments. In the succeeding sixty years the Treasury's use of banks varied from period to period but in general tended to be greater and greater. Yet so long as it lasted, the Independent Treasury System entailed sudden withdrawals of large amounts of cash from the banking community, the locking up of this cash to lie in idleness in the Treasury's vaults for an extended period, and then a restoration of cash to the banks. As a result the ability of banks to extend credit was from time to time abruptly decreased or increased without reference to the need for credit. This condition was described in 1910 by a contemporary student of the subject in the following words:

> The waste involved in the idleness of public funds is less objectionable than the successive expansion and contraction of reserves which result from the receipt and disbursement of revenue. One phase of this movement may be illustrated by the simple case of a pension disbursement. On August 4th the Treasury drew pension checks amounting to $14,970,000, and distributed them throughout the country. About half of this sum was drawn upon the Assistant Treasurer at New York. . . . In a few days this mass of checks is presented to the New York subtreasury through the clearing house and an equivalent amount of money is transferred from the subtreasury to the banks, whose combined reserves, in the absence of countervailing debits, are increased $7,000,000. Without any alteration in the aggregate wealth of the country or even of New

York City the lending power of New York banks is raised about $28,000,000. In order that this new source of profit may be utilized, since nothing in the situation operates immediately to stimulate the demand from commercial sources, the competition of banks in an effort to place their funds lowers the call-loan rate. This reduces the cost of carrying stocks and stimulates speculation for the rise in Wall Street.

To reverse the illustration let us suppose that the collection of duties at the port of New York in a given week reaches the not uncommon sum of $10,000,000. This amount of money is drawn from local banks and trust companies and locked up in the subtreasury. In as far as the effect on reserves and lending power is concerned, it might quite as well have been sunk in New York harbor. The rate for call loans rises, stocks fall or commercial paper which otherwise would have found a ready market remains unsold and the production and exchange of goods may be curtailed.[3]

These disturbances caused by Treasury operations were one aspect of the general problem—another aspect was involved in the use of Treasury funds to correct conditions not caused by Treasury operations. There were numerous and important instances of such use.

In his annual report for 1856, Secretary Guthrie said: "The independent treasury, when over-trading takes place, gradually fills its vaults, withdraws the deposits, and, pressing the banks, the merchants and the dealers, exercises that temperate and timely control which serves to secure the fortunes of individuals and preserve the general prosperity." This was central banking action, its objective being to contract the reserves of banks so as to prevent an over-expansion of credit, or "over-trading," to use the older term. In the following year, 1857, Secretary Cobb had occasion to use his powers in the opposite direction. In order to supply additional reserve funds to the banks and relieve the crisis that had developed, he made purchases of Government bonds in the open market, paying out funds for them which found their way directly into bank reserves.

In subsequent years, the deposit of funds in banks seems to have been a more typical form of Treasury interposition than purchase of securities. Furthermore the practice of allowing Government

[3] Murray S. Wildman, "The Independent Treasury and the Banks," *Annals of the American Academy*, November 1910, pp. 578–79.

funds to accumulate in banks was more common than the practice of directly transferring deposits to the banks from the subtreasuries. Either practice, however, like the purchase of securities by the Treasury and the issuance of certificates by clearing houses, had the effect of maintaining or enlarging the aggregate volume of reserve funds and was, therefore, helpful in time of stringency. But the Treasury, like the clearing houses, had neither the authority nor the means to interpose regularly for the relief of the money market. Thus, in 1857 the Treasury had to cease its purchases before their objective was accomplished, because its funds were needed for other purposes.

The policy which the Treasury followed toward the banks and the money market varied with different Secretaries. While interposition was not in conflict with the letter of the law, it was a departure from the ideal of a complete divorce that the original sponsors of the Independent Treasury System had sought—an ideal based on a distrust of banks and a conviction that the Government should not use their facilities in its fiscal affairs. Secretary Windom, in his report of 1889, stated that the deposit of funds in the banks in amounts largely in excess of the needs of the public service was "wholly unjustifiable." "Such a policy," he wrote, "is contrary to the spirit of the act of August 6, 1846, which contemplates a subtreasury independent of the banks." He announced that he would reduce the deposits.

But under subsequent secretaries the trend was again the other way. In 1898 Secretary Gage put into effect a policy of using Government deposits as a means of regulating continuously the condition of the money market. Redemption of Government obligations and prepayment of interest were also utilized to the same end. He later stated his belief that a central banking institution should be established for such purposes, but since there was none, he thought the Treasury should do what it could even though it was able to perform the central banking function only "in a crude way."

During the incumbency of Secretary Shaw, from 1902 to 1907, the policy of using the Treasury's powers to stabilize credit conditions was carried still further. Funds accumulated in the Treasury were deposited in banks in the crop-moving season and subsequently

withdrawn into the Treasury. The object was not to alleviate a crisis but to ease a normal seasonal strain.

There was much controversy over this practice. Secretary Shaw was praised on the one hand for doing what it was thought had to be done, and condemned on the other for exceeding his authority and the province of the Treasury. He came to the conclusion, contrary to his predecessor's, that the Treasury, if authorized, could do even better than a central banking institution. He suggested in his report of 1906 that the Secretary be "given 100 million dollars to be deposited with the banks or withdrawn as he might deem expedient"; and that he be given "authority over the reserves of the several banks, with power to contract the national bank circulation at pleasure." If this were done, he said, he believed that "no panic, as distinguished from industrial stagnation, could threaten either the United States or Europe that he could not avert." He said further: "No central or Government bank in the world can so readily influence financial conditions throughout the world as can the Secretary of the Treasury under the authority with which he is now clothed."

Establishment of the Federal Reserve System, 1913. The instances that have been recounted illustrate certain related and recurring needs that for more than a century had been met now in one way, now in another. Means were needed to assure better protection from over-expansion of credit, greater availability of bank reserves when necessary, a more elastic currency, and better facilities for handling Government funds without credit disturbance.

The first and second Banks of the United States had provided fiscal agency and depository services, and they had sought to restrain over-extensions of credit by the State banks and to regulate their note issues by insisting upon note redemption. The Suffolk Bank of Boston, a privately managed institution, had acted as a regulator of the currency in the New England region and had exercised a wholesome influence upon the extensions of credit by local banks. Either Bank of the United States—or even the Suffolk Bank—might have evolved in time into a modern central banking organization, had it continued in existence. In the absence of such an organization, the needed services came to be performed princi-

pally by city correspondent banks, by clearing houses, and by the United States Treasury. None of these was adequately empowered or properly situated to perform the service. The city correspondent banks lacked the essential power to expand reserves, and their ability to lend diminished just when crisis made additional reserves most needed. Clearing houses had the power to expand reserves, but their fields of action were local. The Treasury could also expand bank reserves but was without authorization or power to conduct central banking operations regularly.

In 1908, following the panic of 1907, Congress created a National Monetary Commission to investigate the whole subject and recommend legislation. The resulting proposal was that a single institution be established for performance of the central banking function. This gave way to the idea of the present regional system of Reserve Banks supervised and coordinated by a Government board in Washington. The Federal Reserve Act, embodying this plan, was approved December 23, 1913. It provided for exercise of the powers with respect to bank reserves that history indicated were necessary. The following year the twelve Federal Reserve Banks and the Federal Reserve Board (since 1935 designated the Board of Governors of the Federal Reserve System) were organized and went into operation.

In form of organization the Federal Reserve System differs widely from the older central banks in other countries, although the powers bestowed upon it are substantially the same as those possessed by central banks in general. The Reserve System owes fully as much to American experience as to foreign example. It has in fact been imitated in other countries. It departs, for instance, from older central banking practice in that only balances maintained with the Federal Reserve Banks constitute legally required reserves. This arrangement has since been adopted in several other countries, some of which have also adopted the principle, original with the Federal Reserve Act, of authorizing changes to be made by administrative action in the ratio of reserves required against deposits.

FEDERAL RESERVE ACT TO THE PRESENT, 1913–1940

Establishment of the Reserve System, although it made great changes in respect to *function*, accomplished little or no alteration of the banking and credit *structure*. The System was superimposed upon the existing structure. The supervisory powers of the Reserve System were added to those of the Comptroller of the Currency and the forty-eight State authorities. All national banks were required to become members of the System and to supply the capital funds of the Reserve Banks, and State banks were permitted to do so. This has given the System two classes of member banks. While certain services of the Reserve Banks are directly accessible to member banks only, nevertheless the operations of the Reserve System are of a public nature and all banks are beneficiaries of them to some extent, whether members or not.

Bank Suspensions and Emergency Measures. It has already been indicated that suspension became a common phenomenon early in the history of American banking. In the period when note issue was more important than deposits, suspension was possibly even more general than it subsequently became, but not always so severe. This was because it usually meant suspension of specie payments, that is, refusal or inability to redeem circulating notes. The notes might still be used, though at a discount. Much less frequently suspension meant outright bankruptcy. Specie payments were suspended throughout the country in 1814, 1818, 1837, 1841, and 1857. After note issue was taken away from State banks and given to national banks in 1865, suspension of note redemption ceased to occur, note issues being fully covered. Suspensions that occurred thereafter meant inability to repay depositors.

During the period from 1892 to 1920 the number of banks rapidly increased. Concurrently, bank suspensions, which sometimes bulked large in panic years, averaged nearly seventy a year. In 1920 the number of suspensions rose sharply, and from 1921 through 1929 averaged about 600 a year. There were 1,292 suspensions in 1930 and 2,213 in 1931.[4] They were most numerous in

[4] See Table 3, p. 419.

the Middle West and involved principally small banks not members of the Federal Reserve System.

During the period 1908–1917, several States attempted to check bank suspensions by providing for guaranty of deposits. Eight States—Oklahoma, Kansas, Texas, Nebraska, Mississippi, South Dakota, North Dakota, and Washington—established guaranty systems. All of these systems were abandoned. In part this was because the problem at which deposit guaranty aimed was a national one and no adequate action by the separate States was possible.

The initial efforts of the Federal Government to meet the growing weakness of the banking structure were in the direction of providing new credit facilities for banks and bank borrowers. In the early 1920's the War Finance Corporation, which had been in process of liquidation, was revived for the purpose of emergency agricultural financing, including advances to banks, both members of the Federal Reserve System and nonmembers. The Corporation was revived for this purpose presumably because it was thought that the Reserve Banks should operate only in the field of short-term commercial credit—a conception which called for separate institutions to operate in other fields of credit. The War Finance Corporation has since been liquidated, but it was an important example of the tendency to divide related functions among an increasing number of institutions and authorities. Another case in point is that, in the development of the Federal farm loan system, the Federal Intermediate Credit Banks were authorized to discount agricultural paper for banks.

In February 1932 a more intense national emergency brought the Reconstruction Finance Corporation into being. The Corporation began operations with authority to make Federal funds available to banks, both State and national, on any kind of security, including that on which the Federal Reserve Banks were authorized by law to make advances as well as that on which they were not authorized. It advanced 850 million dollars to banks that year, and for a time the number of suspensions fell. It is to be observed that in establishing the Reconstruction Finance Corporation, as in establishing the Reserve Banks, no change was made in the existing structure of

banking and supervision; a new organization was added to the congeries already in operation.

In December 1932 suspensions again increased. The situation had worked to the point where the stronger banks were being dragged down by the weaker banks, partly because the latter drew on the former for reserves and partly because the forced liquidation of portfolios by banks in difficulties impaired the value of portfolios of all other banks. Individual States endeavored to meet the situation by the declaration of banking holidays and moratoria. These efforts to stem universal contraction were unsuccessful, however, and on March 6, 1933, all banks were closed by Presidential proclamation after similar action had been taken by State authorities. Thus, for the time being, Federal authority was extended over all banks. Member banks of the Federal Reserve System were licensed by the Secretary of the Treasury to reopen upon complying with such requirements as were deemed necessary in each case. Nonmember banks were permitted to reopen under the regulations of the State authorities.

In June 1933 the Federal Deposit Insurance Corporation was authorized, and on January 1, 1934, insurance of bank deposits became effective. It was made obligatory for banks belonging to the Federal Reserve System and optional for others. In setting up deposit insurance, no change was undertaken in the complicated structure of banking and supervision already in existence.

Under a series of measures culminating in the Gold Reserve Act, the Government in January 1934 took possession of all monetary gold, including that held by the Federal Reserve Banks, and marked up its value from $20.67 to $35.00 an ounce. This legislation, which also set up the Stabilization Fund and made new provisions for the issue of United States notes and the purchase of silver, gave the President and the Treasury powers which parallel and under some conditions exceed the central banking powers already assigned to the Federal Reserve authorities.

Bank Reserves and Credit Demand. The period since the banking moratorium in 1933 has been in many respects anomalous, from causes partly connected with that crisis and partly independent. An outstanding development has been the gravitation of most of

the world's gold stock to the United States. Prior to 1934, the amount of gold in this country seldom exceeded 4 billion dollars. At the end of 1940 it was 22 billions. This enormous increase in the monetary gold stock has been due mainly to disturbed conditions abroad; about 14 billions of it reflects transfers of capital funds and settlements of net balances due the United States on current account. As a result, American banks now have a volume of reserves which has no reasonable relation to domestic credit needs—a volume of reserves which is several times larger than what the banks had when they were financing American economic expansion in its most active and speculative periods. In spite of the presence of these bank reserves greatly in excess of requirements, the demand for speculative and productive credit has not increased as would be expected from former experience. There has, however, been a greatly increased demand for refinancing and rehabilitation credit, which has been met to a considerable extent by Government lending agencies with funds borrowed in large part from banks.

The situation as a whole is marked by many exceptional and contradictory conditions. There are banks that have little or no idle reserves. Outside the larger cities interest rates have not fallen very much; there are banks in agricultural regions that still obtain 8 per cent or more on local loans while banks in metropolitan centers obtain as little as one and one-half per cent. Many banks have extended their business into lending fields not previously cultivated by commercial banks. They have made more loans secured by mortgages, life insurance policies, and by installment sale contracts, and more so-called personal loans with co-signers and chattel mortgage security. They have acquired Government securities in unprecedented volume. Although the demand by private enterprise for credit does not begin to make full use of the enormously increased reserves, nevertheless, the total loans and investments of banks have expanded very greatly.

International Relations. The Reserve System's original prospects were almost wholly domestic, but in August 1914, before the Reserve Banks began operations and while they were still in process of organization, war broke out in Europe. This event put a strain

upon the American credit structure to which the Reserve authorities had to give immediate attention. Three years later the United States entered the war, and the System was called on to perform fiscal services of vital importance. Ever since the System's establishment, its operations have been conditioned by international as well as domestic developments. The Federal Reserve Banks carry accounts and hold gold under earmark for numerous foreign central banks and governments. In this capacity, and as fiscal agents of the United States Treasury, they are called upon to engage in a large volume of transactions arising from international movements of goods, services, and capital. These transactions, which are subject to constant change resulting from changes in world-wide economic and political conditions, have tended to increase in importance in the course of time. In the present posture of world affairs and considering the defense program of the United States, it is to be expected that their importance and volume will increase still further.

The Nature of Reserve Bank Credit. In the light of the Federal Reserve System's first quarter century of operations, certain conceptions of banking have undergone changes which rank in importance with the events, already recounted, that helped to bring them about. One of the foremost of these changes has occurred with respect to the nature of Federal Reserve Bank credit.

When the System was established and for many years later, the Reserve Banks were usually regarded as a means of "pooling" or "mobilizing" the reserve funds of member banks. To a certain extent this view was correct. But it fell far short of recognizing the full and unique nature of Reserve Bank lending power and Reserve Bank credit. The Reserve Banks are more significant as *sources* of funds than as *reservoirs* of funds. In extending credit, either by lending or by purchasing securities, they do not use funds already deposited with them. Their lending power is independent of the funds deposited with them. When they extend credit, they increase both their assets and their liabilities; they *originate* the funds they lend and the funds they pay for securities.

Reserve Bank credit owes its existence to the provisions of the Federal Reserve Act. It supplements gold and currency as a source

of bank reserves. In supplying it, the Reserve authorities perform a function which it is not possible for correspondent banks to perform and which relieves clearing houses and the Treasury from the necessity of interposition to supply additional reserves to the banking system in emergencies.

When the Reserve System was established, the lending power of the Reserve Banks was thought to resemble the lending power of city correspondent banks; but it has become apparent that the two powers are essentially unlike. Extensions of Reserve Bank credit, issues of clearing-house certificates, transfers of currency from the Treasury's vaults, and deposits of gold all resemble each other in the essential fact that they originate reserve funds not previously existing and therefore augment the aggregate volume of bank reserves, upon which the multiple expansion of bank credit is based. Lending by a city bank to its country correspondent, on the other hand, merely utilizes funds already existing. It *reduces* the aggregate volume of bank reserves available for credit extension, while lending (and purchases of securities) by a Reserve Bank *enlarges* that aggregate.

Increasing the aggregate volume of bank reserves, as already indicated, makes it possible for the volume of bank credit to be expanded. This is true no matter whether the increase in reserves arises from additional amounts of Reserve Bank credit or from additional receipts of gold. Similarly, decreases in the aggregate volume of bank reserves reduces the amount of credit that can be extended by banks; the effect being the same whether the decrease in reserves results from diminution in the amount of Reserve Bank credit or from export of gold. The difference is that changes in the amount of Reserve Bank credit are much more susceptible to control than are changes in the amount of gold. This susceptibility to control is the reason for the existence of Reserve Bank credit; control of the amount of such credit gives some measure of control, in principle, over the extension of the volume of commercial bank credit.

The history of the Federal Reserve System, however, demonstrates nothing more clearly than the limitations on this principle. Provision of an enlarged volume of bank reserves gives no assurance

that the enlarged volume will be put to use and that an increase of commercial bank credit will follow. And the more that bank reserves derive from gold, the less use there tends to be for Reserve Bank credit, and the less effective becomes control over extensions of commercial bank credit. In recent years this limitation might have interfered seriously with the exercise of central banking powers had not the large growth of the monetary gold stock been accompanied by a slack demand for credit.

The Function of Reserves. It is apparent from the foregoing that the conception of bank reserves has also greatly changed. Originally the purpose of reserves was to assure the ability of a bank to redeem its obligations to note holders and depositors. Maintenance of reserves for this purpose, as already indicated, came to be required by law. But in the course of time it grew apparent that reserves which a bank was required to maintain were not reserves which it could pay out. The requirement that the reserves be maintained did not, therefore, assure the ability of a bank to honor its obligations on demand. The requirement did, however, effect a restraint upon the freedom of banks to grant credit to their customers, because lending had to be curtailed when reserves got down to the minimum required. By the same token, lending might be expanded when reserves were replenished. Recognition of these facts gave bank reserves a new significance; instead of being regarded mainly as the individual bank's guaranty of readiness to honor its obligations, they are now regarded as the means by which the central banking authorities may either curtail or augment, as public interest directs, the ability of banks to extend credit.

Meanwhile it has also become realized that banks have other means of assuring their ability to meet their deposit obligations that are more efficient than maintenance of large cash reserves. To the extent that their earning assets are sound, they can depend upon the lending facilities of the Federal Reserve Banks for replenishment of their reserves to any required extent.

The Individual Bank and the Banking System. Out of Federal Reserve operations has also developed a conception of the banking system as a whole that differs greatly from the conception of it as

merely aggregating a large number of individual banks. In the transactions of individual banks competition is an ever present, compelling factor. The individual bank is constantly losing reserve funds to other banks through the checking transactions of its depositors, and unless it can gain as much as it loses, its ability to extend credit is impaired. By the same token, unless it can gain reserves, it can not enlarge its extensions of credit.

In the light of these facts, reserves used to be thought of only as individual bank transactions, and in the early days of the Reserve Banks their extensions of credit to their member banks were considered significant only with respect to the particular banks that borrowed. But experience made it apparent that the Reserve Bank credit granted to an individual bank is not retained by that bank but becomes transferred to other banks. The transaction must be measured, not merely in terms of a particular bank's reserves, but in terms of the aggregate reserve funds available to the banking system as a whole. The effect of the transaction is like that produced by pouring water into a pond; the water does not pile up at the point where it falls into the pond, and the level at that point is not made perceptibly higher than the level as a whole. The increase is diffused and the whole level rises.

Since reserves are only a fraction of deposits, any increase in the volume of reserves as a whole serves as a basis for an expansion of bank credit several times as great. This expansion is not within the power of any particular bank, except to the extent that the bank shares the increased reserves with its competitors. As its reserves increase with the rise in the level of reserves as a whole, its power to meet any enlarged demand for credit increases. This increase may come about slowly and irregularly—in fact it will most probably come about in that way—with the result that a bank's expansion of credit will be tentative and dependent upon a net gain from its daily receipts and losses of reserve funds. So, while an increase in the volume of bank reserves makes possible a much greater increase in the volume of bank credit, it is impossible to say to what extent competition may permit any given bank or banks to share the increase.

From another point of view this principle reflects the fact that

banking has come to constitute a system of interdependent units in action. The typical early American bank was of necessity more nearly self-sufficient than its typical successor of the present. Its capital and its cash in vault had to be relatively larger than is now necessary, for it stood more or less by itself. Today the operations of individual banks are closely interknit, and to a greater extent than is true of other forms of business, banks suffer rather than gain from one another's weaknesses. In the light of these conditions it has become more and more apparent that banking can not be understood so long as it is viewed from the point of view of the single institution; it must be viewed as an organic system of institutions in which the whole is far more than merely the sum of its individual parts.

Accordingly, while the Reserve Banks have as close and necessary relations with their individual member banks as ever, it has become clear that Reserve policy must be determined with reference fundamentally to the banking system as a whole and the general economy.

SUMMARY

American banking in the course of more than a century and a half has changed from the function of supplying means of payment in the form of bank notes to the function of supplying means of payment in the form of bank deposits subject to check. It has changed from a privileged business for which there was little governing legislation to a competitive business subject to an enormous mass of legislative and supervisory conditions. It has changed from an activity of individual institutions with relatively little inter-relation to an activity of individual institutions drawn closely together in an organic system. Yet the American banking system is not homogeneous. It includes national banks, member State banks, insured nonmember State banks, and noninsured nonmember State banks—leaving aside numerous other classes of institutions, State and Federal, which compete with banks. It is under the divided and overlapping authority of the supervisory agencies of the forty-eight States and of four or five major agencies or departments of the Federal Government.

American banking has been remarkable for the number and

variety of forms developed. At one time or another banking has been prohibited, has been a monopoly, and has been free to all. At times, Federal and State governments have assumed proprietary responsibility in banks; at other times, they have dissociated themselves even from supervisory responsibility. The Federal Government and the States have vied with each other for jurisdiction, and the Federal Government has at different times withdrawn from the field, re-entered it with the idea of asserting exclusive jurisdiction, and shared it with the States. Legal requirements of reserves have at times been little more than nominal and at times drastic. Protection for bank creditors has been sought by widely varying means in different periods and different jurisdictions.

The discontinuity of American banking evolution has also been remarkable. In the field of central banking, for example, there are instances of repeated and unrelated attempts at control of the reserve problem through the media of currency redemption, correspondent banking, clearing-house action, and Treasury action; and the present system of regional Reserve Banks bears little resemblance in organization and form of action to preceding attempts in the same field. The number and variety of experimental developments has to some extent arisen from periodic breakdowns and to some extent has helped to bring on breakdowns. Some experiments have failed and some have succeeded. Nearly all have been notable for their originality and for their independence of banking tradition and banking practice in other countries.

Banking is not independent of the general economy it serves; while it contributes by its own strength or weakness to the strength or weakness of the economy as a whole, it is itself subject to shocks and strains from other parts of the economy. In the United States, its development has followed a pattern of economic expansion and contraction. It has been led to excesses in periods of expansion, and in periods of contraction it has had to throw the burden of losses upon depositors and stockholders, and indirectly upon the general public. The history, in other words, does not indicate a steady evolution from weakness to strength but a series of ups and downs.

FEDERAL BANKING LEGISLATION

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WALTER WYATT
General Counsel

FEDERAL BANKING LEGISLATION

During the early period of American banking there were no general banking laws. Banks were created by special acts of Congress or State legislatures establishing particular banks and prescribing their powers.

The first bank charter in America was granted by the Continental Congress in 1781 when it chartered the Bank of North America in Philadelphia. However, there was much doubt whether the Congress had legal authority to grant a corporate charter and the bank obtained charters also from the States of Pennsylvania, Delaware, New York, and Massachusetts. Its operations were conducted mainly under its Pennsylvania charter, and the Congressional charter was used very little, if at all. In 1784, Massachusetts chartered the Bank of Massachusetts, and in 1791 New York chartered the Bank of New York, which however had been organized in 1784. These three institutions were in operation before adoption of the Federal Constitution.

THE BANK OF THE UNITED STATES

The Constitution did not grant Congress any express authority to charter banks or other corporations; but the First Congress under the Constitution chartered the Bank of the United States in 1791. Its establishment was recommended by Alexander Hamilton, Secretary of the Treasury, as a means of meeting the Government's need of a fiscal agency to facilitate Federal Government financing and the collection, safekeeping, and disbursement of Federal funds. Hamilton also emphasized the importance of the Bank to private business enterprise. It would provide discounts for merchants, and its circulating notes and deposits transferable by check would furnish the community means of monetary payments.

At the time, as well as for years later, there was opposition to banks in many quarters both on the general ground of social

expediency and on the specific ground of constitutionality. The objection was also made that the proposed bank would tend to interfere with the powers of the States with respect to banks. Notwithstanding these objections, a charter was granted and the Bank went into operation. Its corporate existence, however, was limited to twenty years and, when an effort was made to extend it, the opposition prevailed and the Bank's corporate existence expired.

The loss of the Bank's services as fiscal agent resulted in serious hindrance to Treasury operations, and efforts to reestablish a "national bank," as it was called, were renewed. They met strong opposition; but a charter was granted and the new bank—also known as the Bank of the United States—was established in 1816.

The belief was widely held that the charter of the Bank was unconstitutional; the States where branches were situated were jealous of the Bank's presence; and the State banks, which by then had become numerous, were generally incensed at the Bank's insistence that they redeem their notes in specie. Maryland attempted to tax the Bank's Baltimore branch; the Bank appealed; and in 1819 the Supreme Court, in one of its most momentous decisions (*McCulloch* v. *Maryland*, 4 Wheat. 316) upheld the right of Congress to charter a bank as a convenient, appropriate, and useful instrumentality to aid the Federal Government in the performance of its functions. The Court further held that, except with the consent of Congress, a State could not interfere by taxation or otherwise with the operations of a bank created by Congress. This position was reaffirmed in 1824 in *Osborne* v. *United States*, 9 Wheat. 738.[1]

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[1] In these decisions the Court held that the power of Congress to charter a bank is derived from a group of great powers, including the powers to lay and collect taxes, to borrow money, to regulate commerce, to declare and conduct wars, to raise and support armies and navies, and "To make all Laws which shall be necessary and proper for carrying into execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof." These decisions definitely established the right of Congress to charter banks and to endow them with all powers necessary or appropriate to enable them to maintain themselves and to compete with other institutions. They also established the principle that, except with the consent of Congress, a State can not interfere by taxation or otherwise with the operation of a bank created by Congress. These doctrines have been reaffirmed and their application extended in subsequent decisions, a few of which are summarized in later footnotes.

Although the question of constitutionality was settled by these decisions, political opposition to the Bank continued, and Andrew Jackson vetoed the bill renewing its charter. In 1836 the Bank acquired a State charter and terminated operations as a Federal instrumentality. The power to charter banks was not exercised again by Congress until 1863. In the meantime, the only banks were State banks and the only banking legislation was State legislation.

THE INTERIM, 1836–1863

To provide the Treasury with facilities which would take the place of those formerly provided by the Bank of the United States as fiscal agent and depositary, and to make the Treasury independent of State banks and their unsatisfactory note issues, Congress in 1840 adopted a subtreasury act. The following year the act was repealed, but in 1846 another measure to the same effect was enacted. In effect, it involved a refusal of the Government to accept either the circulating notes or the deposit obligations of the State banks, and this refusal was a step toward eventual provision for a national currency and banking system. On the other hand, operations under the terms of the subtreasury law reacted disturbingly upon credit conditions. The collection and disbursement of Government funds alternately withdrew funds from banks and then restored them to banks; and the fluctuations thus produced in the volume of bank funds caused fluctuations in the lending power of banks without reference to the credit needs of agriculture, commerce, and industry.

The phase of banking which attracted the most attention during this period was the issuance of circulating notes, and most State banking legislation was designed to prevent abuses of the note issue privilege and to assure the redemption of the notes. One of the most interesting laws of this kind was that enacted in New York in the year 1829 establishing a safety fund system for the mutual insurance of banks for the protection of their creditors. It required all banks to make annual contributions to a fund to be used in paying off liabilities of insolvent banks; but it was found that the fund was insufficient to cover both deposit and note

liabilities and the law was later amended so as to insure only liabilities for circulating notes, which was the original intention.

FREE BANKING, 1838-1863

In 1838 the New York legislature enacted a "free banking" law, which established a principle that was accepted in nearly all subsequent banking legislation, Federal and State. Viewed in this light, the New York Free Banking Act was one of the most important pieces of legislation in American banking history. It was based upon the principle that banking should not be the privilege of the few but should be open to all like other business, and it gave American banking the distinguishing characteristic of a large number of individual banks instead of a few large banks such as there are in most other countries. It provided that any group of persons might organize an association to engage in the banking business by entering into articles of association and filing them with certain State officials. By designating these new banks as "associations," a term still used in both Federal and State banking laws, it distinguished them from the older banks incorporated by special charter. It also provided that upon depositing certain securities with the State Comptroller, any person or association of persons might receive circulating notes to be issued as money. It provided for uniform regulation of the banks organized under its terms and contained a requirement of reserves against note liabilities—apparently the first reserve requirement in American banking legislation—but this requirement was repealed a few years later.

The widespread adoption of free banking legislation in other States and the rapid growth in the number of banks in regions not yet sufficiently developed to maintain a sound banking system resulted in numerous bank failures and large losses to note holders and other creditors. There resulted a gradual development of legislation providing safeguards against the abuse of the note issue privilege and various measures designed to enforce adherence to the principles of sound banking. These included, among other things, requirements that a minimum amount of capital be paid in by the organizers, restrictions on the amount of notes which might be issued, requirements that they be secured by the pledge of

securities with State officials, requirements that banks maintain reserves against their note issues and deposits, restrictions on the kind and amount of loans that could be made, and provisions for examination and supervision by public officials.

In spite of such measures by certain States, the condition of the currency throughout the country became chaotic. By 1863 over a thousand banks had power to issue notes and the great majority were exercising it. Each bank had its own form of note. In the confusion of forms and multiplicity of issues, counterfeit notes, spurious notes, and notes of failed banks were everywhere in circulation. Some notes were worth par, others were worth nothing, and still others were good only at varying discounts.

THE NATIONAL BANK ACT

In the belief that the situation called for national measures, legislation was introduced in Congress patterned after the provisions of the New York Free Banking Act. This legislation is now known as the National Bank Act.[1] It was originally enacted in 1863 and was revised in 1864. Besides providing for a sound currency which would circulate at a uniform value throughout the country, the act was intended also to aid the Federal Government in financing the War by stimulating the sale of Government bonds to be used as security for the bank notes put into circulation.

The provisions regarding circulation were carefully drawn and contained many features designed to avoid the imperfections which experience had disclosed in the State laws. Probably the most important difference between the New York law and the National

[1] The constitutionality of the National Bank Act was upheld on the same grounds as that of the act creating the Bank of the United States, and the Supreme Court held that the power to create a banking system carries with it the power to preserve it. *Farmers and Mechanics National Bank* v. *Dearing* (1875), 91 U. S. 29. National banks are subject to the paramount authority of the United States and any attempt by a State to define the duties of a national bank or to control the conduct of its affairs is absolutely void whenever such attempt conflicts with the laws of the United States, frustrates the purpose of the national legislation, or impairs the efficiency of these agencies to perform the functions for which they were created. *Davis* v. *Elmira Savings Bank* (1896), 161 U. S. 275. Congress has the sole power to regulate and control the exercise of their functions by national banks and the States can not interfere with them or their officers in the exercise of the powers conferred upon them by Congress. *Easton* v. *Iowa* (1903), 188 U. S. 220.

Bank Act was that the State did not guarantee the payment of State bank notes but left their payment to depend upon the solvency of the banks and the value of the securities pledged with the State officials; whereas the United States Government guaranteed the payment of national bank notes and undertook to reimburse itself from the proceeds of its own bonds, which were pledged to secure the notes, and from the other assets of the bank, which were subjected to a first and paramount lien to secure its circulating notes.

With regard to the organization of banks, the National Bank Act followed the pattern of the free banking laws of New York, Ohio, and other States. Any number of persons not less than five could organize an association for carrying on the general banking business by entering into articles of association and filing them with the Comptroller of the Currency, the head of a newly created bureau in the Treasury Department. They could not commence business until they had obtained a certificate from the Comptroller; but he was not authorized to withhold such a certificate except for noncompliance with the specific requirements of the Statute or on the ground that he had reason to suppose that the association had been formed "for any other than the legitimate objects contemplated by this act." The law did not require the organizers to satisfy the Comptroller that they were qualified to engage in the banking business, that additional banking facilities were needed, or that the proposed bank had reasonable prospects of success.

The act prescribed the minimum amount of capital which a bank must have and required half to be paid in before the bank commenced business and the remainder in not more than ten monthly installments. It also required the banks to maintain reserves of 15 or 25 per cent of the aggregate amount of their circulating notes and deposits, depending upon their location, but permitted three-fifths of the reserves of banks in certain cities to consist of balances due from national banks in certain other cities. The amount of real estate which a national bank could own and the amounts of loans to individual borrowers were strictly limited; the shareholders were made personally liable for the obligations of the bank to the extent of the par value of their stock in addition

to the amount invested therein; banks were forbidden by implication to make loans on real estate and were expressly forbidden to make loans on the security of their own stock; the total amount of their indebtedness was strictly limited; they were required to make periodic reports of their condition to the Comptroller of the Currency; and provision was made for examinations.

It was expected that the national banks would supersede the State banks and provision was made for the easy conversion of State banks into national banks without interruption to their business and without losing their corporate identities; but these expectations were not realized.

By the Act of March 3, 1865, later reenacted as the Act of July 13, 1866, Congress imposed a tax of 10 per cent on the circulating notes of State banks. The avowed purpose of this legislation was to create a uniform currency by driving the circulating notes of State banks out of existence and, if necessary, by forcing all State banks into the national banking system.[3] The constitutionality of this act was upheld by the Supreme Court in 1869 in the case of *Veazie Bank* v. *Fenno* (8 Wall. 533), on the ground that, "Having thus, in the exercise of undisputed constitutional powers, undertaken to provide a currency for the whole country, it can not be questioned that Congress may, constitutionally, secure the benefit of it to the people by appropriate legislation."

This ended State bank circulation but not the State bank system. The National Bank Act created an additional system of individual unit banks operating under national law alongside various State systems. In each State we have one system of banks organized

[3] In his report to Congress dated Nov. 28, 1863, the first Comptroller of the Currency said that "the idea has at last become quite general among the people that the whole system of State banking, as far as circulation is regarded, is unfitted for a commercial country like ours." In his report of Nov. 24, 1864, he said that "as long as the two systems are contending for the field . . . the Government can not restrain the issue of paper money." In presenting to the Senate the bill imposing a 10 per cent tax on State bank notes, Senator Sherman, Chairman of the Finance Committee, said that "with the terrible lessons of 1815 and 1837 staring us in the face, no one was bold enough to advise us to make as a standard of value the issues of 1500 banks founded upon as many banking systems as there were States. . . . The national banks were intended to supersede the State banks. Both can not exist together. . . ." *Congressional Globe*, 38 Cong. 2 sess., pp. 1138, 1139.

under State law and supervised primarily by State officials and another system of banks organized under Federal law, supervised by Federal officials and free from any interference by the State officials.

Between 1864 and 1913 Congress passed over sixty acts amending the National Bank Act, but most of these dealt with matters of detail and none of them made any important changes in the fundamental characteristics of the national banking system.

THE NATIONAL MONETARY COMMISSION

The country continued to have recurring crises, panics, and depressions which resulted from time to time in the suspension of specie payments by most or all of the banks. Following the panic of 1907 Congress passed the Aldrich-Vreeland Act of May 30, 1908, which sought to lend elasticity to the currency by permitting the issuance of currency based on commercial paper and State and municipal bonds, and also provided for the appointment of a National Monetary Commission consisting of senators and representatives to study our system of finance and banking and recommend remedial legislation.

The National Monetary Commission submitted a report on January 8, 1912, in which it indicted the banking system on seventeen counts. Among other things, it found that the bond-secured currency was too rigid and inelastic; that we had no provision for the mobilization of the cash reserves of the banks and their use wherever needed in times of trouble; that we lacked means to insure effective cooperation between the banks in times of stress or crisis; that we had no instrumentality that could effectively deal with the broad questions which affected the credit and status of the United States from an international standpoint; that the surplus money of all sections was sent to New York where it was usually lent on call on stock-exchange securities, tending to promote dangerous speculation and inevitably leading to serious disturbances in reserves; that we had no power to enforce the adoption of uniform standards with regard to capital, reserves, examinations, and the character and publicity of reports of all banks in different sections of the country; and that the Inde-

pendent Treasury System resulted in irregular withdrawals of money from circulation in periods of excessive Government revenues and in the return of these funds to circulation only in periods of deficient revenues.

THE FEDERAL RESERVE ACT

The report of the National Monetary Commission was referred to the Banking and Currency Committee of the House of Representatives and a subcommittee headed by Honorable Carter Glass undertook the work of revising the currency system. It had before it the report of the National Monetary Commission and collected, examined, and analyzed other existing data and proposals. Many plans were examined and rejected. Finally a new bill was drafted in which it was sought to combine the best features of all plans which had been proposed, together with various new ideas. A new Banking and Currency Committee was appointed on June 3, 1913, and reported the bill on September 9. The majority report submitted by Mr. Glass, as chairman, contains a valuable exposition of the philosophy and purposes of the legislation. The bill was enacted on December 23, 1913, with some amendments, and is known as the Federal Reserve Act.

The Federal Reserve Act sought to tie the multitude of individual banks together and to provide for a measure of coordination and cooperation among them by erecting a superstructure consisting of twelve regional Reserve Banks which were in turn tied together by the Federal Reserve Board in Washington.

Each national bank was required to become a member of the Federal Reserve Bank of its district by subscribing to the stock thereof and depositing its reserves therein, and eligible State banks and trust companies were invited to do likewise. It was stated at the time that the Federal Reserve Banks were to be "bankers' banks," serving their member banks in much the same way that commercial banks serve their depositors. In addition to holding the reserve deposits of their member banks, they were to rediscount commercial paper and collect checks for them and supply coin and currency to them. They were also to act as de-

positaries and fiscal agencies of the Government, and the subtreasuries were abolished in 1920.

The only factor of nation-wide centralization provided for in the Federal Reserve Act was the Federal Reserve Board, which was to be "a strictly Government organization" created for the purpose of supervising the twelve Federal Reserve Banks, "in order that they may pursue a banking policy which shall be uniform and harmonious for the country as a whole."[4] It was first proposed to vest this power in the Comptroller of the Currency; but President Wilson objected on the ground that it was too much power to vest in one man and suggested that it be placed in a board.

A flexible currency was provided through the issuance of Federal Reserve notes, which are obligations of the United States as well as of the Federal Reserve Banks, protected by a gold reserve and secured by a first and paramount lien on all of the assets of the Federal Reserve Banks. A requirement that these notes also be secured by the specific pledge of commercial paper was intended to insure that the volume would expand and contract in response to the changing needs of business. The existing national bank notes were to be retired gradually over a period of twenty years.

The existing system of pyramided reserves was to be abolished and the reserves of the banking system were to be concentrated mainly in the Federal Reserve Banks, whose business it was to be to keep them available for use when needed in any part of the country and to replenish them when necessary by extending credit to member banks.

Banking facilities for foreign trade were to be provided for by

[4] The report of the House Committee on Banking and Currency (H. rep. 69, 63 Cong. 1 sess., p. 18) said, "The only factor of centralization which has been provided in the Committee's plan is found in the Federal Reserve Board, which is to be a strictly Government organization created for the purpose of inspecting existing banking institutions and of regulating relationships between Federal Reserve Banks and between them and the Government itself. . . . It is proposed that the Government shall retain a sufficient power over the Reserve Banks to enable it to exercise a directing authority when necessary to do so, but that it shall in no way attempt to carry on through its own mechanism the routine operations of banking which require detailed knowledge of local and individual credit and which determine the actual use of the funds of the community in any given instance."

authorizing national banks to establish branches abroad; national banks were given trust powers; some of the more obvious defects in the National Bank Act were corrected by detailed amendments; and efforts were made to stiffen the examination requirements by placing the examiners on a salary instead of a fee basis, requiring the Comptroller of the Currency to have at least two thorough examinations made each year of every State member bank as well as every national bank, and authorizing the Federal Reserve Banks and the Federal Reserve Board to make additional examinations of all member banks.

In the Committee's report to the House of Representatives on the original Federal Reserve Act it was proposed to "make the Comptroller of the Currency in all respects answerable to the Federal Reserve Board"; but a compromise was later agreed upon by which the only coordination provided was to make the Comptroller an *ex officio* member of the Board, to place his functions regarding Federal Reserve notes under the direction of the Board, and to give the Board certain control over salaries of national bank examiners.

The Federal Reserve Act has been amended by fifty-eight different acts of Congress during the twenty-seven years that the System has been in operation. None of them has altered the fundamental characteristics of the Federal Reserve System, but many have changed the act in important particulars.

NEW TRENDS IN FEDERAL LEGISLATION

The Federal Reserve Act and the amendments thereto initiated two new tendencies in Federal banking legislation: (1) to make new statutes of a regulatory nature applicable to State member banks as well as national banks, since State banks could be members of the Federal Reserve System only on the terms and conditions prescribed by Congress;[5] and (2) to vest new powers of regulation and supervision in the Federal Reserve Board instead of the Comp-

[5] The Supreme Court has held that State member banks, having chosen to come into the Federal Reserve System created by Congress and to enjoy the benefits of the System, are subject to such laws as Congress may enact for the protection or regulation of the System. *Westfall* v. *United States* (1927), 274 U. S. 256.

troller of the Currency. Even the administration of some laws applicable to national banks alone was vested in the Federal Reserve Board, so that there was an increasing tendency to divide the supervision of national banks between the Board and the Comptroller.

There also developed a conflict between two underlying policies. Repeated efforts were made to put national banks on a basis of competitive equality with State banks by increasing their powers and by subjecting State member banks to some of the restrictions applicable to national banks; but this policy was not followed consistently, because the desire to make membership in the Federal Reserve System attractive to State banks made Congress hesitate to impose additional restrictions upon them and caused it to repeal some originally imposed.

Thus, the war-time Act of June 21, 1917, which was designed to mobilize the financial resources of the country by inducing more State banks to join the Federal Reserve System, exempted them from examination by the Comptroller of the Currency and from compliance with certain provisions of the National Bank Act to which they previously had been subjected in order to prevent them from having unfair competitive advantages over national banks. It also provided that, while enjoying the benefits of membership in the System, they could continue to exercise the corporate powers granted to them by State laws and might withdraw from the System on six months' notice whenever they chose to do so.

The Act of September 26, 1918, amended the Federal Reserve Act in several different places; but the only amendment of importance was the one which broadened and strengthened the right of national banks to engage in the trust business. Thus, while the Act of June 21, 1917, increased the competitive disadvantage of national banks by repealing some of the restrictions on State member banks, the Act of September 26, 1918, sought to improve the competitive position of national banks by facilitating their entry into a field which had been reserved to State banks until the enactment of the Federal Reserve Act.[6]

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[6] The Supreme Court sustained the grant of trust powers to national banks on the ground that a State may not by legislation create a condition as to a particular business

The so-called McFadden Act of February 25, 1927, resulted from the efforts of the Comptroller of the Currency to obtain legislation which would "put new life into the national banking system." The preceding years had witnessed a rapid increase in the total number of State banks, a rapid spread of branch banking, and a tendency for national banks to convert into State banks or merge with them under State charters. This resulted partly from the fact that national banks were not permitted to establish branches and partly from the fact that the State banks could obtain the benefits of membership in the Federal Reserve System while continuing to enjoy the broader powers granted to them under State laws.

Although called an act to "modernize" the National Bank Act, the McFadden Act made no attempt at a comprehensive revision of the National Bank Act but consisted of a large number of detailed amendments. It granted indeterminate charters to national banks and Federal Reserve Banks; enlarged the power of national banks to make real-estate loans; modified the limitations on the amount which a national bank could lend to a single borrower; recognized the right of national banks to purchase investment securities; improved the procedure for the consolidation of State banks with national banks under the charter of the latter; and made a number of other detailed amendments to the National Bank Act and the Federal Reserve Act. It served the immediate purpose of checking defections from the national banking system; but it fell far short of eliminating all of the competitive disadvantages under which national banks were laboring.

With respect to branch banking, it endeavored to place national banks on a basis of competitive equality with State member banks of the Federal Reserve System by authorizing national banks to

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which would bring about actual or potential competition with the business of national banks and at the same time deny the right of Congress to enable the national banks to meet such competition, even through the exercise of powers which would not otherwise be considered inherently susceptible of being included in the powers which Congress may confer upon national banks. *First National Bank* v. *Union Trust Company* (1917), 244 U. S. 416. The Court also held that, although there is nothing over which a State has more exclusive authority than the jurisdiction of its courts, a State can not use this power to prevent national banks from competing with State banks for trust business. *State of Missouri* v. *Duncan* (1924), 265 U. S. 17.

establish branches within the corporate limits of the places in which they were located and by forbidding State member banks to establish branches outside of the corporate limits of the places in which their head offices were located; but it made no effort to restrict the establishment of branches by State banks which were not members of the Federal Reserve System.

EMERGENCY LOANS TO BANKS

The failure of many State banks and trust companies to join the Federal Reserve System and the lack at individual banks of adequate amounts of paper eligible for rediscount at Federal Reserve Banks were among the important factors which led to the revival of the War Finance Corporation to make emergency loans to banks and others during the depression of the early 1920's;[7] and the first emergency legislation occasioned by the depression of the early 1930's was the Reconstruction Finance Corporation Act of January 22, 1932, which created a corporation to extend financial assistance during the emergency to banks, trust companies, savings banks, insurance companies, and other financial institutions which were in distress. This Corporation was capitalized with 500 million dollars subscribed by the Government and was given very broad powers to make loans on any kind of adequate security. Originally, its lending powers were to last for only one year, unless the President extended them for an additional year; but these powers have been extended and enlarged from time to time. While it was not given any express power to supervise banks, its lending operations and the rights acquired as an incident thereto made it a major factor in the banking field.

[7] In its report on the Agricultural Credits Act of 1923 (S. rep. 998, 67 Cong. 4 sess., page 8), which created a special system of banks to extend credits to agriculture, the Senate Committee on Banking and Currency said: "The Committee is impressed with the fact that the most important problem now confronting the banking system of the United States is the inclusion in the Federal Reserve System of the large number of State banks which are not now members. The Federal Reserve System was established by Congress for the benefit of all sections of the United States, and of all types of commercial, industrial, and agricultural activity. It has appeared, however, from testimony before this Committee that especially in the agricultural sections a great majority of the State banks are not members of the System and hence are unable to take advantage of the rediscount facilities which the System affords . . . and have thus deprived communities which they serve of the facilities which Congress has provided."

The Federal Reserve Banks did not have sufficiently broad statutory authority at the time to enable them to meet these emergencies. They were not permitted to extend credit to nonmember banks and there were thousands of State banks which had not become members of the System. The circumstances attending the emergencies had so weakened the banks that many of the nonmember banks might not have qualified for membership if they had applied. In extending credit to member banks, the Federal Reserve Banks were restricted by law as to the type of paper they could accept and many of the member banks had inadequate amounts of eligible assets. The Federal Reserve Act could have been amended and later was amended; but there was considerable resistance to amendments designed to enable the Federal Reserve Banks to meet such emergencies, because the assets of the Federal Reserve Banks constituted the backing for member bank reserves and Federal Reserve notes and the opinion was held by many that the Federal Reserve Banks were not the appropriate agencies to render adequate emergency assistance to the banks under the circumstances then prevailing.

Intensification of the banking emergency, however, led to the enactment of a number of emergency amendments to the Federal Reserve Act, the first of which was the Glass-Steagall Act of February 27, 1932, which authorized the Federal Reserve Banks, for a limited period, to make advances to member banks on their promissory notes secured by any assets satisfactory to the Federal Reserve Bank. This provision was subject to rigid limitations and restrictions and was availed of to only a limited extent; but its life was extended and its restrictions modified from time to time until it was made permanent and practically all of the restrictions were removed by the Banking Act of 1935. The Glass-Steagall Act also authorized emergency loans to groups of five or more member banks which had exhausted their eligible paper; but this provision was never used, although its life was not limited and it is still upon the statute books. It also amended the Federal Reserve Act so as to permit the use of Government obligations as collateral for Federal Reserve notes. This authority was to have expired March 3, 1933, but has been extended by successive amendments to June 30, 1943.

THE BANK HOLIDAY OF 1933

The banking situation, which had been steadily growing worse, reached a crisis in the early part of 1933. The panic produced in the minds of depositors by the increasing number of bank failures resulted in runs, which precipitated the insolvency of banks in a weakened condition and forced even solvent banks to close. These difficulties were intensified by the fact that thousands of nonmember banks held a large part of their reserves in the form of balances with city correspondents and even member banks had large balances on deposit with other banks. The failure of a large bank in a financial center, in addition to disrupting the business of its commercial depositors and other customers, was likely to precipitate the failure of many of its country correspondents. Desperate measures were taken to stem the tide of bank failures. They usually took the form of proclamations declaring legal holidays for the purpose of making it lawful for all banks in the State to suspend payment without committing acts of insolvency. In some States legislation was enacted authorizing banks to restrict withdrawals by their depositors.

The problem of meeting this emergency was complicated by the fact that in each State there were two classes of banks, one subject to Federal laws and one subject only to State laws. It was doubtful whether State authorities had the legal power to close national banks or to authorize them to restrict the withdrawal of deposits, and action taken by the State authorities for the protection of State banks might leave national banks unprotected and concentrate the fire upon them. In an effort to solve this problem, Congress enacted a joint resolution on February 25, 1933, temporarily authorizing the Comptroller of the Currency to exercise with respect to national banks any powers which State officials might have with respect to State banks; but the situation was changing so rapidly that it was impossible for the Comptroller to ascertain, interpret, and apply the emergency powers of the authorities in forty-eight different States quickly enough to meet the emergency.

By March 4, 1933, practically all of the banks in the country had been closed under holidays declared by the State Governors;

and on March 6, the President, acting under emergency powers,[8] issued a proclamation forbidding any bank in the United States, until further notice, to pay out any coin or currency or to transact any other business except to the extent permitted by regulations of the Secretary of the Treasury.

A special session of Congress convened on March 9, 1933, and passed an Emergency Banking Act on the same day. It ratified and confirmed the President's action in declaring a bank holiday and the regulations issued thereunder, clarified the President's emergency authority over banking, and prohibited member banks of the Federal Reserve System during any such emergency period from transacting any banking business except in accordance with the regulations, limitations, and restrictions prescribed by the Secretary of the Treasury with the approval of the President. As the emergency proclamation has not been terminated, member banks continue to operate subject to the terms of licenses issued by the Secretary of the Treasury.

One title of the Emergency Banking Act, designated as the "Bank Conservation Act," provides a legal means of suspending the business of banks in difficulties, conserving their assets, preventing preferences, and permitting the transaction of a limited business pending reorganization, reopening, or final liquidation. Although this was an exercise of the very broad power of Congress to enact laws relating to bankruptcies, it was made applicable only to national banks. State banks needing to suspend operations pending rehabilitation were left to rely upon State laws.

As a further means of facilitating the reorganization of banks having insufficient or impaired capital, provision was made for the purchase of preferred stock in national banks and State banks by the Reconstruction Finance Corporation upon the request of the Secretary of the Treasury. This facilitated the rehabilitation of banks but increased the responsibilities of the Secretary of the Treasury and the Reconstruction Finance Corporation in the field of Federal bank supervision.

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[8] Sec. 5 (b) of the Act of Oct. 6, 1917 (40 Stat. 411), as amended by the Act of Sept. 24, 1918 (40 Stat. 966).

By a rider, popularly known as the "Thomas Amendment," to the Act of May 12, 1933, the President was authorized to direct the Secretary of the Treasury to enter into agreements whereby the Federal Reserve Banks would purchase and "hold in portfolio" obligations of the United States in the aggregate amount of 3 billion dollars in addition to those already held. It provided that, if the Secretary of the Treasury was unable to obtain such an agreement or if for any other reason "additional measures are required," the President might direct the Secretary of the Treasury to issue currency in the form of United States notes in the amount of 3 billion dollars.

In recognition of the danger that the bill might lead to inflation, an attempt was made to guard against it by two provisions: one authorized the Federal Reserve Board, with the approval of the Secretary of the Treasury, to require the Federal Reserve Banks "to take such action as may be necessary, in the judgment of the Board and of the Secretary of the Treasury, to prevent undue credit expansion." The other authorized the Federal Reserve Board, upon the affirmative vote of not less than five of its members and with the approval of the President, to declare "that an emergency exists by reason of credit expansion" and to increase or decrease from time to time in its discretion the reserve balances required to be maintained against either demand or time deposits. The latter provision was revised by the Banking Act of 1935 and the power to change reserve requirements is now regarded as one of the established instruments of credit policy.

THE BANKING ACT OF 1933

The Banking Act of 1933 was essentially a reform measure aimed at the prevention of specific abuses which had been disclosed by the events leading to the bank holiday.[9] Of its forty-eight sections and

[9] In its report on the Banking Act of 1933 (S. rep. 77, 73 Cong. 1 sess., p. 2), the Senate Banking and Currency Committee said: "... the Committee ... felt that immediate emergencies were so great that it was wise to defer the preparation of a completely comprehensive measure for the reconstruction of our banking system, such as had been urged by some responsible men. Hence the Committee resolved to construct a bill to correct manifest immediate abuses, and to bring our banking system back into a stronger condition. Thus, for example, it seems to be the consensus of opinion

subsections, twenty-one amended the Federal Reserve Act, nine amended the National Bank Act, five amended miscellaneous other acts of Congress, and thirteen were not made parts of any existing laws.

It erected safeguards against certain abuses, strengthened the hands of the bank supervisory authorities, increased the controls over the volume and use of bank credit, provided for the insurance of bank deposits, and provided that after July 1, 1936, insurance of State banks should be limited to those that were members of the Federal Reserve System.[10]

The provisions for deposit insurance were made an integral part of the Federal Reserve Act, the Federal Reserve Banks were required to contribute half of their surplus to the capital of the Federal Deposit Insurance Corporation, and all member banks of the Federal Reserve System were required to have their deposits insured; but the activities of the Federal Deposit Insurance Corporation were made entirely independent of those of the Federal Reserve Board.

The reform provisions of the Banking Act of 1933 in almost every case were applied to all member banks. However, one provision was not confined to member banks, or even to insured banks, but was made applicable to all banks and bankers. This was the prohibition against the receipt of deposits by any person who is engaged in the business of underwriting, selling, or distributing securities or who does not publish reports of condition and submit to examination by State or Federal banking authorities. In enacting this section, Congress assumed jurisdiction over every "person, firm, corporation, association, business trust, or other similar organization" in the United States which engages "to any extent whatever in the business of receiving deposits. . . ."

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among banking authorities that the United States will never have a complete and strong system until such time as it shall succeed in fully harmonizing and adjusting State and Federal laws on banking questions. This might involve a constitutional amendment or some equally far-reaching measure necessitating a long postponement of action."

[10] The effective date of this requirement was postponed from time to time, banks with deposits of less than one million dollars were exempted by the Banking Act of 1935, and the requirement was repealed entirely by the Act of June 20, 1939.

OTHER LEGISLATION

The Gold Reserve Act of 1934, approved January 30, 1934, concentrated all of the gold, including that held by the Federal Reserve Banks, in the hands of the Treasury. Of the "profit" resulting from the reduction of the gold content of the dollar, 2 billion dollars were set aside on the books of the Treasury in a fund to be operated by the Secretary of the Treasury, with the approval of the President, "for the purpose of stabilizing the exchange value of the dollar"; but it was also provided that:

> The fund shall be available for expenditure, under the direction of the Secretary of the Treasury and in his discretion, for any purpose in connection with carrying out the provisions of this section, including the investment and reinvestment in direct obligations of the United States of any portions of the fund which the Secretary of the Treasury, with the approval of the President, may from time to time determine are not currently required for stabilizing the exchange value of the dollar.

The Securities Exchange Act, approved June 6, 1934, was based primarily upon the broad power of Congress to regulate interstate commerce and was designed to provide for the regulation of securities exchanges and brokers and dealers in securities and to prevent manipulative and unfair practices in the securities markets. Among other things, it undertook to regulate margin requirements "for the purpose of preventing the excessive use of credit for the purchase or carrying of securities"; and a question arose as to whether this power should be vested in the Securities and Exchange Commission, to which was to be committed the administration of the provisions relating to the registration of exchanges and securities and to the regulation of trading practices, or in the Federal Reserve Board. It was finally decided to place the power to fix margin requirements in the Federal Reserve Board, on the ground that this power is in closer relation to the regulation of credit than to the regulation of trading practices and on the further ground that the Board was "the most experienced and best equipped credit agency of the Government." Under the power thus conferred, the Board has prescribed margin requirements not only for brokers and dealers in securities but also for all banks in the United States, including

nonmember noninsured State banks over which the Board had previously exercised no authority.

By exempting common trust funds from taxation as corporations (thereby avoiding double taxation of the beneficiaries) only when they are maintained in conformity with the regulations of the Board of Governors of the Federal Reserve System pertaining to the collective investment of trust funds by national banks, Congress has also made it necessary as a practical matter for all banks operating common trust funds to comply with the Board's regulation on this subject, regardless of whether they are members of the Federal Reserve System and regardless of whether their deposits are insured.

THE BANKING ACT OF 1935

The Banking Act of 1935 made a number of important amendments to the Federal Reserve Act, principally for the purpose of concentrating responsibility for national credit policies and strengthening the power of the Federal Reserve Board to coordinate the activities of the twelve Federal Reserve Banks. It enlarged the supervisory powers of the Federal Deposit Insurance Corporation and made a few provisions of the Federal banking laws applicable to all insured banks. In addition it made a large number of technical amendments to existing banking laws for the purpose of correcting defects in them, tightening them in some respects and liberalizing them in others, so that they would more effectually accomplish the purposes for which they were intended without necessarily hampering the banks on matters of detail. It amended the National Bank Act in nineteen places and the Federal Reserve Act in thirty-six places.

It changed the name of the Federal Reserve Board to "Board of Governors of the Federal Reserve System," removed the Secretary of the Treasury and the Comptroller of the Currency from the Board, and reconstituted the Board with seven full-time members having terms of office running from two to fourteen years, with a provision that their successors shall be appointed for terms of fourteen years.

The Federal Open Market Committee was reorganized so as to consist of the seven members of the Board of Governors of the

Federal Reserve System and five representatives elected on a regional basis by the Federal Reserve Banks and was given complete control over the open-market operations of the Federal Reserve Banks, thus definitely fixing the responsibility for open-market operations.

All other responsibility for national credit policies formerly vested in the Federal Reserve Board was continued in the Board of Governors of the Federal Reserve System, which retained the authority over margin and reserve requirements and over the rates of interest which might be paid by member banks on time and savings deposits and the final authority over the discount rates of the Federal Reserve Banks.

By extending the protection of certain Federal criminal laws to all insured banks and authorizing the Federal Deposit Insurance Corporation to regulate the payment of interest on deposits by insured nonmember banks, Congress recognized that it could extend Federal banking legislation to all insured nonmember banks;[11] but very few of the restrictive and regulatory provisions were so extended, and insured nonmember banks are permitted to enjoy much greater freedom from Federal regulation than member banks.

One amendment made by the Banking Act of 1935 constitutes a substantial modification of the principle of free banking. It requires the Federal Deposit Insurance Corporation before insuring a nonmember State bank, the Board of Governors of the Federal Reserve System before admitting a noninsured State bank to membership in the Federal Reserve System, and the Comptroller of the Currency before granting a newly organized national bank a permit to commence business, to consider "the financial history

[11] The courts have held that insured nonmember State banks, having chosen to come into the insurance system created by Congress and to enjoy the benefits of the system, are subject to such laws as Congress may enact for the protection or regulation of the system. *United States* v. *Doherty* (1937), 18 Fed. Supp. 793; 94 Fed. (2d) 495; *certiorari* denied, 303 U. S. 658; *Weir* v. *United States* (1937), 92 Fed. (2d) 634; *certiorari* denied, 302 U. S. 761. The distinction between a State member of the Federal Reserve System and a nonmember State bank which participates in and enjoys the benefits of Federal deposit insurance, is of no substance so far as the applicability of Federal laws is concerned. *Weir* v. *United States* (1937), *supra*. See also opinion on "Constitutionality of Legislation Providing a Unified Commercial Banking System for the United States," *Federal Reserve Bulletin*, March 1933, p. 166.

and condition of the bank, the adequacy of its capital structure, its future earnings prospects, the general character of its management, the convenience and needs of the community to be served by the bank, and whether or not its corporate powers are consistent with the purposes of this section." However, this Federal requirement has no effect upon the organization of noninsured, nonmember State banks.

The requirement that nonmember banks of a certain size must become members of the Federal Reserve System in order to retain their deposit insurance was repealed entirely by the Act of June 20, 1939.

SUMMARY

The adoption of the principle of free banking about a hundred years ago has resulted in a multitude of independent banks, some created and supervised by the Federal Government and some created and supervised by the governments of the forty-eight States. The Congress and the State legislatures have made repeated efforts to enforce good management and adherence to sound banking principles by statutory restrictions and by provisions for examination and supervision. This has resulted in a large volume of complicated State and Federal banking laws and has created complexity in the structure of our banking system and in the system of bank supervision.

Upon this complicated structure the Federal Reserve System was superimposed in 1913 and the system of Federal deposit insurance in 1933 as two separate superstructures.

There has been no complete revision of the Federal banking laws since the National Bank Act was revised in 1864; but there have been countless detailed amendments.

The supervision of our commercial banking system is divided between the Federal Government and the forty-eight States; and that part which is vested in the Federal Government is divided among the Secretary of the Treasury, the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Reconstruction Finance Corporation.

Inequities and inconsistencies in Federal banking laws result largely from the fact that Congress first legislated only for national banks, later extended some of its regulatory and restrictive provisions to State member banks of the Federal Reserve System, later extended only a few of them to nonmember insured banks, and has extended only two or three provisions to all banks, so that we have four competing classes of banks subject in varying degrees to regulations and restrictions prescribed by Congress.

The present banking system of the United States is a complicated structure resulting from a process of evolution covering a period of a century. The existing banking laws are the product of the same evolutionary process and many of them were enacted to meet emergencies or specific competitive conditions as they arose from time to time. A comprehensive review of the entire field should disclose those respects in which our banking laws and our system of banking and bank supervision could be improved, simplified, coordinated, and better equipped to serve the public interest.

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CURRENCY SYSTEM OF UNITED STATES

The present efficiency of the currency system is a comparatively modern development. Before the Civil War, paper currency was issued almost entirely by banks chartered by the States and much of it was depreciated in value over considerable periods. National bank notes and United States notes, or greenbacks, which the Government began to issue in 1862 as a temporary war measure, marked the beginning of a Federal paper currency of nationally uniform value and of general acceptability. National bank notes, however, failed to meet completely the need for an adequate amount of currency at all times because of the rigidity in their supply. They could not increase beyond the outstanding amount of those United States Government bonds that were permitted by law to serve as collateral against their issuance. Establishment of the Federal Reserve System, which provided for the issuance of Federal Reserve notes against commercial and agricultural paper, went a long way toward correcting this defect. Recent legislation authorizing the use of United States Government obligations as collateral for issuance of Federal Reserve notes contributed further to the elimination of rigidity in the currency system.

ESTABLISHMENT OF THE GOLD DOLLAR

The first steps in the establishment of the currency system were selection of the dollar as the monetary unit and of gold as the standard money. In colonial days the public had become accustomed to two monetary units, the English pound and the Spanish dollar. Use of the English pound was due to the previous custom of the English colonists and to the large volume of trade with the mother country. Widespread use of the Spanish dollar grew out of the important trade with the Spanish colonies, principally the West Indies. Although business accounts were kept predominantly in pounds, the "bills of credit" issued by the Continental Congress in 1775 to meet its expenses were printed in dollar denominations. These bills came to be generally used as money. Under the Articles

of Confederation, Congress in 1785 adopted the dollar as the monetary unit.

The Bimetallic Standard and the Contest between Silver and Gold. The new Government, by the Act of 1792, continued the dollar as the national monetary unit and provided for its coinage in both silver and gold. Under this law, anyone could present unlimited amounts of gold and silver at the mint for coinage into legal tender money at the rate of 24.75 fine grains per dollar for gold and 371.25 fine grains for silver. These rates were recommended by Alexander Hamilton on the basis of the approximate weight of Spanish dollars then in use and on the basis of what he believed to be the customary ratio at which the two metals were interchangeable among merchants. Though both gold and silver coin were legal tender, and remained the only legal tender until the Civil War, there was a long contest between the two as to which would remain in actual use.

In order for both gold and silver to circulate under a bimetallic standard, it is essential that the relative values of the two metals at the mint remain substantially the same as their relative values for purposes other than domestic coinage. The Act of 1792 gave silver a higher coinage value relative to gold than it had in either the world market or the mints of foreign countries. As a result Americans receiving payments from abroad preferred foreign silver coin to foreign gold coin: a given sum in foreign silver coin could be recoined into more dollars than the equivalent sum of foreign gold coin. Conversely foreigners preferred to receive their payments from America in gold coin. Gold therefore flowed out of the country and silver flowed in. In time the legal tender currency was composed almost entirely of silver coin; such gold coin as was in circulation commanded a premium.

Gold Displaces Silver after 1834. In order to eliminate the premium on gold and to stimulate its monetary use, the fine content of the gold dollar was reduced to 23.20 grains in the Act of June 28, 1834, while the fine content of the silver dollar was left unchanged at 371.25 grains.[1] This completely reversed the former situation, for

[1] A technical change relating to alloy in the coins was made in 1837 that increased the fine content of the gold dollar to 23.22 grains.

now a given sum in foreign gold coin could be recoined into more dollars than the equivalent sum of foreign silver coin. Consequently, silver flowed out of the country and gold flowed in. Gold thereafter completely replaced silver as legal tender currency and came to be, despite the legal provisions for a bimetallic standard, the actual standard money of the country.

PAPER CURRENCY BEFORE THE NATIONAL BANKING SYSTEM

Paper money issued by the colonies had been in general use long before the Revolution, and during the war large amounts of notes were issued by the Continental Congress. By 1780, however, these "Continentals" had lost practically all their value, causing losses to creditors and those receiving fixed incomes. Consequently, the new Federal Government, according to contemporary interpretations of the monetary provisions of the Constitution, was not authorized to issue paper money. Not until the Legal Tender Cases of 1871 and 1884 was it finally decided by the Supreme Court that Congress had the Constitutional power to issue paper money.

Authority to issue paper money was given to private banks chartered by the new Congress and by the various States. These banks, particularly the first and the second Bank of the United States, played an important part in the history of our currency up to the time of the Civil War.

First Bank of the United States, 1791–1811. The first Bank of the United States was founded in 1791 as a part of Alexander Hamilton's plan for establishing the finances of the new Government on a firm basis. The importance of this bank in the history of our currency was twofold: it furnished a considerable share of the country's circulating medium for a period of twenty years and it forced other banks to maintain the redemption of their notes, thereby aiding in the maintenance of a currency of more or less uniform value throughout the country.

The amount of notes that the first Bank of the United States could legally issue was limited to the amount of its capital stock. Its notes were receivable for all payments to the Government so long as the Bank redeemed them in specie. Notes issued by the Bank were at a level of about 5 million dollars during most of its

life. This was roughly one-fifth of the country's total note circulation, most of which was furnished by banks chartered by the various States.

Under conservative management, the first Bank of the United States accumulated enough specie to cover its note issue almost 100 per cent. Moreover, for its own protection, it promptly presented for redemption all notes of other banks deposited with it, thus forcing the State banks to maintain more strict standards of liquidity. As a result of this action, however, the Bank incurred the severe hostility of State banks in expanding sections of the country that suffered from a shortage of capital. By 1811 the question of the Bank's continued existence had become a political issue and Congress allowed the charter to expire in that year.

After the restrictive influence of the first Bank of the United States was lifted, the number of banks chartered by the States increased rapidly. Their loans also expanded, often for speculative purposes, and their note issues increased. A depreciation of over one-third in the notes of many State banks became not at all uncommon. The War of 1812 contributed to the chaos; Government credit was extremely weak; and many banks suspended their operations altogether. The general financial system of the country was in a state of collapse.

Second Bank of the United States, 1816–1836. These chaotic conditions reduced political opposition to a Federal bank, and the second Bank of the United States was established in 1816. Broadly speaking, the currency provisions of its charter were similar to those of the charter for the first Bank. Notes of the Bank in denominations under $100 were redeemable in specie on demand and, though not legal tender, were receivable in all payments to the Government. Notes in denominations over $100 were not redeemable until sixty days after the date of issue, but very few of them were issued.

One of the main purposes of the second Bank of the United States was to restore some order in the country's currency by forcing State banks to redeem their notes in specie. But when the State banks strongly resisted, the new Bank acquiesced and even dodged redemption of its own notes. Furthermore, it soon expanded its own

loans considerably, many of doubtful soundness. It was not until after a change in management in 1819 that the Bank began to exercise a salutary influence on the disorganized currency situation.

In the process of improving the quality of the Bank's loans the new management forced a considerable liquidation of bank credit which was felt particularly in those sections of the country that were developing most rapidly but were suffering from shortages of capital. In addition to restoring its own capital and credit position, the Bank compelled the redemption of notes by many State banks, and thereby the resumption of specie payments. Apparently, however, the Bank was not as successful as the first Bank of the United States in establishing a fairly general par redemption of the note issues of State banks. The management was also accused of playing politics.

In the end the Bank encountered the same resistance that had defeated the first Bank. Andrew Jackson won a reelection to the Presidency in 1832 on a platform that called for winding up the Bank when its charter expired in 1836. This election gave the signal for a large credit expansion by State banks. Along with the formation of many new State banks there was a rapid increase in speculative loans, and during the ensuing panic of 1837 specie payments were generally suspended.

Suffolk Banking System. New England, New York, and Louisiana also experimented with different types of currency systems that greatly influenced subsequent currency legislation, in particular the provisions adopted in the National Banking Act.

In Massachusetts the Suffolk Banking System of redemption of note issues was an entirely voluntary arrangement on the part of Boston banks. Boston was an active trade center and large quantities of notes issued by country banks in the State moved in and out of the city. As a measure of self-protection the larger Boston banks joined together in 1824 under the leadership of the Suffolk Bank and created a system for maintaining the par redemption of notes issued by country banks. This Bank offered to hold deposits for country banks for the purpose of redeeming any of their notes that were presented to it. Country banks that failed to maintain such deposits ran the risk of having the Suffolk Bank accumulate their

notes and present large amounts for redemption at one time. This system served to maintain a currency that was generally acceptable throughout New England.

In 1858 another organization for similar purposes was formed by a large group of country banks in New England. This was the Bank of Mutual Redemption, with which the Suffolk Bank later shared its redemption and clearing functions.

New York Free Banking System. A landmark in the evolution of the currency system was the New York Free Banking Act of 1838. Previously the State had required a new bank to have a special charter. Under the Free Banking Act any individual or group could form a bank that could receive notes printed under its own name from the Comptroller of the State upon deposit with him of an equivalent amount of collateral. Eligible securities included bonds of the United States, bonds of the State of New York and of certain other States, and mortgages of a specified type on improved, productive, and unencumbered real estate.[2] In case of the failure of the bank, its collateral securities could be sold by the Comptroller for the redemption of its notes. The Free Banking Act set the precedent for the issuance of notes under the national banking system upon the deposit of Government securities with the Treasurer of the United States.

Notes issued under the Free Banking Act were basically no better than the securities pledged against them. Debt repudiation on the part of most States soon made their bonds undesirable as note collateral. Consequently it was not long before the securities of States other than New York, and even Federal securities, were ruled out of the list acceptable as collateral against the notes. Efforts to secure the value of notes by requiring high-grade collateral were unsuccessful. Many New York banks failed and their notes were redeemed only at a discount.

[2] Banks operating under special charters could continue to issue notes without specific security, but under the Safety Fund Act of 1829 such banks were required to make annual payments into a fund used for the redemption of notes as well as the payment of other debts of insolvent banks. The inadequacy of the fund during the wave of bank failures in 1837, however, destroyed confidence in the Safety Fund System, and by 1842, when the fund was completely liquidated, the bulk of the notes were being issued by banks operating under the Free Banking Act.

Eventual success under the Free Banking System was due in large part to another important development; namely, the banding together by banks in New York City to protect their own interests in much the same way as the Boston banks had cooperated in the formation of a system of note redemption under the Suffolk Bank. In 1851 the New York City banks organized a system of central par redemption of notes of other banks and in 1853 began daily redemption of their own notes by establishing the clearing house. By 1860 the notes of New York banks had a high standing in adjoining States. The Free Banking System was widely copied as a means of correcting unsatisfactory currency conditions. It met with less success in other States, however, because current redemption was not enforced and notes were often issued against speculative securities.

Louisiana Banking System. After a long period of bad banking, Louisiana passed a general banking act in 1842. The bearing of this law on the evolution of the currency lay chiefly in its requiring: (1) a minimum reserve in specie equal to one-third of total notes and deposits; (2) a backing of ninety-day commercial paper against the notes and deposits not covered by specie; (3) a quarterly examination of the condition of the banks by State officials; and (4) monthly publication of condition statements. In the State banking system set up by the law, no bank could pay out the notes of another bank and each bank had to settle weekly for its balances due to other banks in the system. This law in conjunction with the favorable trading position of New Orleans, which built up the banks' supply of specie and short-term bills, enabled Louisiana banks to weather the panic of 1857 without suspending specie payments. By 1860 the amount of specie held by banks in the State was second only to the holdings of New York banks.

Condition of the Currency in 1860. The condition of the note circulation just prior to the Civil War has been summarized by an authority as follows:

> The New England banks had entered into a voluntary combination to secure the daily redemption of their circulation, and this, together with the general soundness of their assets, maintained their notes in good credit. The greater number of the New York banks were established under a general law which

required a deposit of public stocks with the State government as security for the redemption of their circulation. But this provision for ultimate payment did not answer the same purpose as the New England system of securing the immediate convertibility of the circulation, and it was accordingly only by the voluntary adoption of a similar system that the New York banks secured for their currency full confidence. In some of the Middle States, and in a large part of the West, the New York system of a secured circulation had been adopted, but with great looseness of detail, and currency had been poured out based upon stocks of uncertain value and without provision for its prompt redemption. In the South, three States, Florida, Arkansas, and Texas, forbade the establishment of banks within their limits, others had followed the New York system, while Louisiana, availing herself of the peculiar course of Southwestern trade which then made New Orleans a natural *entrepôt* for specie, had established her banks on a more solid foundation of coin than any others in the United States.[3]

ORIGIN OF FEDERAL PAPER CURRENCY

Federal paper currency owes its existence directly to the Civil War. Before the war the Treasury had issued only interest bearing notes in certain emergencies—during the War of 1812, the financial crisis of 1837, the Mexican War of 1846, and the political crisis of 1860–1861. Although generally receivable by the Government for certain payments, these notes were not legal tender and were never intended to pass as money. Owing to the poor condition of the State bank issues, however, these notes did on occasion serve as money in some sections of the country, being printed in denominations as small as $3.00.

When war began in 1861, the Federal Treasury had little cash and the market for its securities was weak. The Government began to issue paper money and in 1863–1864 Congress passed legislation that strengthened the market for Government bonds by authorizing the formation of national banks that were required to pledge the bonds as security for their note issues. These types of Federal currency rapidly replaced the circulation of highly diversified issues of State bank notes.

United States Notes. Shortly after the outbreak of war in 1861,

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[3] Charles Franklin Dunbar, *Economic Essays*, The Macmillan Company, New York, 1904, pp. 270–71.

the Treasury began to issue demand notes redeemable in gold. These notes were called in at the beginning of 1862 and United States notes were issued in their stead. These new notes, or "greenbacks," were irredeemable noninterest bearing demand notes and legal tender for the payment of all private debts.

The legal tender quality of greenbacks assured their general acceptance, but since they were irredeemable and the amount issued increased rapidly, their value in specie declined severely. After deterioration of the Union finances in 1861, they depreciated like the State bank notes on which redemption had generally been suspended. Sharp rises in commodity prices and the fear that paper money might eventually become worthless aroused strong opposition to a continued financing of the war with greenbacks. By 1866, the amount in circulation exceeded 325 million dollars and, for over a decade, greenbacks comprised nearly half of the total currency.

National Bank Notes. In 1861 the Secretary of the Treasury had recommended a national system of bank notes secured by bonds of the United States Government. In this way he hoped to give the country a currency of wide acceptability. Although shelved during the extreme financial emergencies at the outbreak of the war, this plan became the basis of the National Banking Acts of 1863 and 1864. It was hoped that the plan thus enacted into law would, in addition to providing a uniform currency, extend the market for Government bonds and thus obviate the necessity of financing the war through the issuance of more greenbacks.

State banks withdrew their notes from circulation because every bank had to pay a Federal tax of 10 per cent on all State bank notes paid out after July 1, 1866. A State bank that became a national bank, or any new national bank, was permitted to issue bank notes to the extent of 90 per cent (later 100 per cent) of the face value of certain Government bonds it deposited with the Treasury.[4]

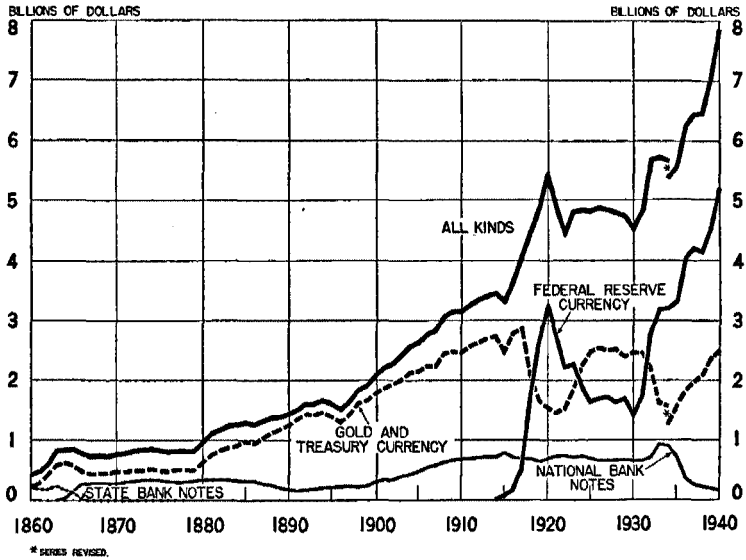
By 1870 national bank notes in circulation, as shown in the chart on page 74, amounted to about 300 million dollars, which

[4] There were also other limitations; for example, no bank could issue notes in excess of its paid-in capital stock and the total issue for all banks was limited to 300 million dollars until 1870 and to 354 million dollars until 1875, when the limitation was removed.

was over one-third of the total currency circulation. In time the new currency came to be recognized as important chiefly because of its nationally uniform quality rather than because of the market it afforded for Government bonds.

Silver Certificates. During the Civil War most of our gold and silver coin was exported and throughout the 1870's very little specie was in circulation. Even fractional silver coin, though relegated to a subsidiary position in 1853 by a reduction in fine

CURRENCY IN CIRCULATION, BY KIND[a]



[a] For data, see Table 4, pp. 420–21.

silver content, had become scarce. For about forty years it had not been profitable to bring silver to the mint for coinage, and when the coinage legislation was overhauled in 1873, the free coinage of silver dollars was suspended. By 1876, however, the market price of silver had fallen sharply. Agitation for resuming the coinage of silver dollars resulted in compromise legislation in 1878 and again in 1890 directing the Treasury to buy silver in stated amounts for coinage into standard silver dollars and authorizing the issuance of silver certificates. This legislation was repealed in 1893. By that time

nearly 400 million dollars of silver dollars and certificates had been issued under the silver purchase program.

Resumption of Specie Payments, 1879. In 1878 the amount of greenbacks then outstanding, $346,681,016, was fixed as the total greenback issue, and in the following year the Government instituted redemption of greenbacks in specie. When redeeming Federal currency the Secretary of the Treasury had the option of paying out either silver or gold coin. It appears, however, that with only one exception in 1885, the Treasury had followed the practice of redeeming only in gold, which put the country on a *de facto* gold standard. The Act of 1900 legally established this standard by requiring that the Secretary of the Treasury maintain all forms of money issued or coined by the United States at parity one with another. Thus the Secretary was obligated to redeem in gold coin if the price of gold threatened to rise to a premium.

Inelasticity of the Currency. The chief defect of the currency was the inelasticity in its supply. The stock of monetary gold varied as gold flowed in and out of the country. But the amount of United States notes that could be issued was limited by law; the amount of national bank notes was limited, among other things, by the amount of certain Federal securities outstanding; and the amount of silver dollars and silver certificates was determined largely by the Government's program of purchasing silver.

Thus, the supply of currency was limited by factors that were not directly related to the public's need for currency and the banks were unable to expand the supply when the public's requirements increased from time to time. There are pronounced seasonal movements in the demand for currency.[5] For example, before Christmas, when the volume of retail trade is expanding, large amounts of additional currency are required for cash purchases. Under the National Banking System the position of the banks was especially serious when seasonal upswings in the demand for currency coincided with periods of financial strain. The banks could meet the currency drain only by paying out their currency reserves; and, when these

[5] For a complete description of seasonal movements in the demand for currency see the *Federal Reserve Bulletin*, August 1939, pp. 641–44, and December 1932, pp. 735–40.

were exhausted, they could not use good assets as a basis for increasing their reserves or note issue. It was this inability of the currency supply to expand that constituted the main fault in the currency system and at times necessitated emergency action.

Currency in circulation can always contract. Contraction has never been a problem, for the public has never kept any more currency than it wanted. Currency can always be redeposited in banks. Decreases, as well as increases, in the amount of currency in circulation, however, have significant effects on the banking system and on the general credit situation because they affect the reserve position of banks—an increase in circulation reducing bank reserves and a decrease in circulation building up reserves. Thus changes in the public's demand for currency have at times had undesirable effects in producing alternative shortages and superfluities in bank reserves. This was, however, not so much a currency problem as a problem of adequate control over bank reserves.

About 1860, the clearing houses established by banks in various cities first issued loan certificates backed by Government securities as well as other assets. Such certificates were frequently issued in periods of financial strain and were accepted by the local banks, in lieu of cash, as payment for claims made through the clearing house. The most extensive use of such certificates occurred during the panic of 1907, when they were even paid out to the public for circulation. Precedents of this sort were the basis of the Aldrich-Vreeland Act of 1908, which temporarily provided, pending more thorough legislation, that small groups of national banks could form national currency associations through which the Treasury could issue notes to banks on the deposit of commercial paper and of bonds other than Government bonds. About 300 million dollars of Aldrich-Vreeland currency was issued in 1914 during the crisis that came with the outbreak of war in Europe.

FEDERAL RESERVE CURRENCY

One of the express purposes of the Federal Reserve Act of December 23, 1913, was to provide the country with an elastic currency, that is, a currency that would change in amount as the public's demand for it changed. It was intended that the new currency, Federal Reserve notes, would merely supplement the existing cur-

rency supply, which was composed chiefly of United States notes, national bank notes, gold coin and certificates, and silver coin and certificates. By 1920, however, the new currency surpassed in amount all other types of currency combined, as shown by the chart on page 74.

Federal Reserve Notes. The Reserve Act sought to insure the elasticity of Federal Reserve notes by providing that they could be secured by collateral consisting of notes, drafts, bills of exchange, or acceptances acquired by the Reserve Banks through rediscount for member banks or purchase in the open market. It was believed that the available volume of such paper usually increased or decreased in accordance with changes in the volume of general business payments and that its eligibility as collateral would relate the volume of available note collateral to the current need for circulating currency.

In practice, however, it was found that there was no dependable connection between the Reserve Banks' holdings of eligible paper and the demand for circulating currency. Holdings of eligible paper depended chiefly on the borrowing of member banks and sometimes showed little change or even declined when the need for currency increased. Other provisions of the Federal Reserve Act, however, supplied the necessary means of meeting the public demand for currency at such times.

To the extent that Federal Reserve notes were not secured by the specified collateral, the act as amended in 1917 provided that they might be issued against gold reserves held by the Reserve Banks. Since the gold supply was adequate, the lack of eligible paper did not prevent the Federal Reserve Banks from issuing notes. Nor did member banks need eligible paper in order to procure currency from the Federal Reserve Banks because member banks could secure currency to meet the demands of their customers by drawing upon their reserve balances at the Reserve Banks. Member banks could replenish these balances without discounting eligible paper in either of two ways: by borrowing from the Reserve Banks on the security of Government bonds, which were not themselves eligible as collateral for Federal Reserve notes; or by depositing funds arising from open-market purchases of securities by the Federal Reserve authorities. Until the business depression of the early 1930's, these

provisions of the act were sufficient to furnish the public with all of the currency it demanded.

During the depression, however, there was a large demand for currency by the public for hoarding in addition to a large export of gold, both of which exerted a heavy pressure on the reserves of member banks. In order to assist banks in meeting the demands upon them without unduly increasing their indebtedness to the Reserve Banks, the Federal Reserve System purchased a considerable volume of United States Government securities in the open market. Since these securities were not eligible as collateral against the increased volume of Federal Reserve notes outstanding, and since the Reserve Banks did not have sufficient commercial and agricultural paper as backing for the additional currency, it was necessary for them to segregate a larger amount of their gold reserves as collateral against the additional notes. Consequently the amount of gold available for other use by the Federal Reserve Banks was reduced by nearly one billion dollars. This situation greatly restricted the amount of additional Government securities that the Federal Reserve Banks could purchase in order to ease monetary conditions or to offset gold outflows or currency hoarding, both of which developed on a large scale in 1931.

To meet this situation the Glass-Steagall Act was adopted in 1932. It permitted the use of Government securities as collateral against Federal Reserve notes for a period of one year. This provision has been periodically renewed and under present law will expire on June 30, 1943.

Under the Federal Reserve Act as modified by the Glass-Steagall amendment it is improbable that the public's requirements for currency could ever be too great for the currency system to meet. Thus the central objective of a currency system, which is to furnish a supply of currency for circulation that will fluctuate obediently with the public's requirements, is accomplished by existing law.

Federal Reserve Bank Notes. The original Federal Reserve Act also provided for Federal Reserve Bank notes. They were to be issued by the Reserve Banks under almost the same conditions as the notes of national banks, which they were expected to replace eventually. They never became a permanent part of the currency,

however, because it was found that increases in the demand for currency for circulation could be met by Federal Reserve notes. In 1918 as much as 250 million dollars of Federal Reserve Bank notes were issued under the Pittman Act to replace silver certificates withdrawn from circulation as a result of the sale of monetary silver to Great Britain for the support of the Indian rupee. These notes were retired in the early 1920's. Again, following the banking emergency of 1933, over 200 million dollars of Federal Reserve Bank notes were issued, but they are now being retired as fast as they are returned from circulation.

CURRENCY DEVELOPMENTS SINCE 1933

Under the Federal Reserve Act as amended by the Glass-Steagall Act, the currency system, as distinct from the banking and general monetary system, has been improved to the point where it can withstand severe strain. It functioned successfully during the banking difficulties of 1932 and the opening months of 1933, when the widespread failure of banks brought about a general loss of confidence in the banking system and an unprecedented hoarding of currency. A bank depositor could get all the currency he wanted so long as his deposits, or in other words the assets of his bank, were good. There was a real question as to the worth of some of these deposits and assets; in fact many deposits became frozen in closed banks and these of course could not be withdrawn in currency. This, however, was not due to defects in the currency system. It was a general banking problem or, stated even more broadly, a national economic problem.

Owing partly to economic difficulties during the early 1930's, important alterations were made in the monetary system. Although the principal effects of these changes were on the monetary and banking system as a whole, they had some influence on the currency system.

Revaluation of Gold. The outstanding monetary event since 1933 has been the revaluation of gold. Under authority of the Gold Reserve Act of January 30, 1934, the President on January 31, 1934, reduced the gold content of the dollar from $25\frac{8}{10}$ grains to $15\frac{5}{21}$ grains of gold nine-tenths fine, thereby raising the Treasury's gold price from $20.67 to $35.00 a fine ounce. This action fixed the value

of the dollar in the foreign exchange market at about the level to which it had depreciated during the previous year.

Governmental action prevented revaluation from having any important effects so far as the holders of gold and currency were concerned. A series of executive orders and Treasury regulations issued in 1933 in accordance with the Emergency Banking Act of March 9, 1933, made it unlawful for banks and the general public to hold gold coin and certificates. On January 30, 1934, the day before revaluation, title to all gold held by the Federal Reserve Banks was transferred to the United States Government at the old price of $20.67 a fine ounce, the Banks receiving Treasury credits payable in gold certificates. Thus the Federal Treasury's cash increased by the full mark-up in the value of gold which amounted to over 2.8 billion dollars. No profit accrued to the banks or the public from revaluation; it all accrued to the United States Treasury.

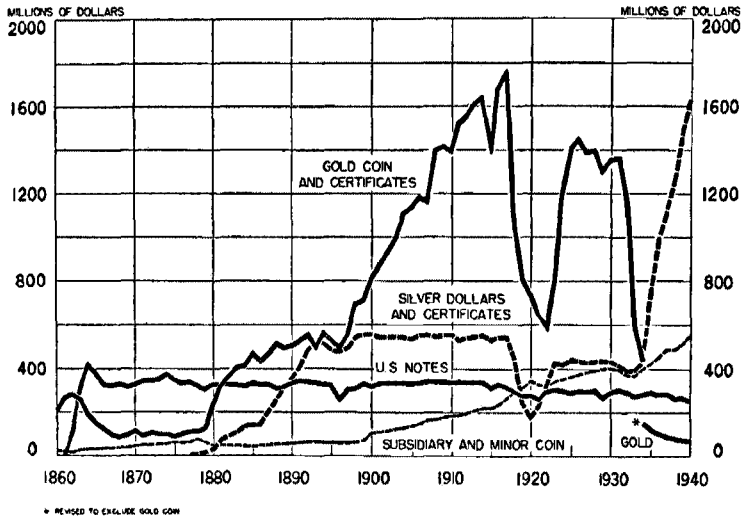
Retirement of National Bank Notes. Part of the profit arising from the revaluation of gold was used by the Treasury in 1935 in retiring the only two bond issues that could then be legally pledged by national banks as collateral for their circulating notes. Provision for issuing national bank notes ceased by August 1, 1935. For some time the banks had in fact failed to issue notes to the full amount permitted by the volume of bonds bearing the circulation privilege. When the bonds were retired national banks deposited enough funds with the Treasury to cover their notes outstanding and the Treasury thereupon assumed the liability for the notes, which are being cancelled as rapidly as they are received. Retirement of the bonds that had been held as collateral against the notes furnished banks with funds to deposit for redemption of the notes.[6]

Silver Purchases. While gold certificates, national bank notes, and Federal Reserve Bank notes in circulation have been decreasing in volume, silver certificates have been increasing as shown by the chart on page 81. This growth has been due to the Silver Purchase Act, which became law June 19, 1934. This act declared it to be the Government's policy to increase the proportion of silver to

[6] For a description of the retirement of the national bank notes see the *Federal Reserve Bulletin* for August 1935, pp. 496-97, and the *Annual Report of the Board of Governors of the Federal Reserve System* for 1935, pp. 27-28.

gold in the monetary stock of the United States with the ultimate objective of having one-quarter of the monetary value of such stock in silver. To attain this objective the Secretary of the Treasury was directed to purchase silver under certain conditions at a price not in excess of $1.29 a fine ounce, its coinage value when made into standard dollars. The act required that silver certificates be issued in an amount not less than the total cost of the silver purchased.

GOLD AND TREASURY CURRENCY IN CIRCULATION[a]



[a] For data, see Table 5, pp. 422–23.

These certificates have been issued in place of Federal Reserve notes, so that the silver program has altered the composition of the currency but has not affected the total volume of currency in circulation. The most important effects of the silver purchases, however, have been not on the currency system, but on the volume of member bank reserves, which they increase in the same way as gold purchases.

Provision to Issue 3 Billion Dollars of Greenbacks. Under the so-called "Thomas Amendment" of May 12, 1933, the President may direct the Secretary of the Treasury to issue 3 billion dollars of greenbacks for the retirement of Federal debt. This power has not

been utilized. If it were it would not influence the responsiveness of the volume of currency in circulation to the changing needs of the community, and therefore, though it would affect the composition of currency in circulation, it would not affect its total volume. However, the use of this power would increase the already swollen volume of member bank reserves.

CURRENCY IN CIRCULATION IN SELECTED YEARS, BY KIND[a]

(Amounts outside Federal Reserve Banks and Treasury, as of June 30)

KIND OF CURRENCY	AMOUNT (IN MILLIONS OF DOLLARS)				PERCENTAGE DISTRIBUTION			
	1860	1870	1914	1940	1860	1870	1914	1940
State Bank Notes	207	2	—	—	47.6	.3	—	—
Gold and Treasury Currency	228	481	2,744	2,497	52.4	62.3	79.3	31.8
Gold coin and certificates	207	113	1,638	67	47.6	14.6	47.4	.9
Silver dollars and certificates	—	—	551	1,629	—	—	15.9	20.8
United States notes	—	325	338	248	—	42.1	9.8	3.2
Subsidiary and minor coin	21	43	217	553	4.8	5.6	6.3	7.0
National Bank Notes	—	289	715	165	—	37.4	20.7	2.1
Federal Reserve Currency	—	—	—	5,185	—	—	—	66.1
Federal Reserve notes	—	—	—	5,163	—	—	—	65.8
Federal Reserve Bank notes	—	—	—	22	—	—	—	.3
Total Circulation	435	772	3,459	7,848	100.0	100.0	100.0	100.0

[a] For sources and description, see notes to Tables 4 and 5, pp. 421 and 423.

CHANGES IN COMPOSITION OF THE CURRENCY

Changes since 1860 in the main elements composing the currency circulation are shown in the preceding charts and in the accompanying table. In 1860 circulation was about equally divided between gold and State bank notes. By 1870 the importance of gold had been greatly reduced and State bank notes had virtually disappeared. United States notes had become the largest component of the currency, over 40 per cent of the total, with national bank notes a close second.

By 1914, the monetary gold stock had increased by such large amounts that gold coin and certificates formed nearly 50 per cent of the currency in circulation. Silver dollars and certificates accounted for about 15 per cent, having increased as a result of the Government's silver purchases under the legislation of 1878 and 1890.

National bank notes had reached their peak of about 700 million dollars, and accounted for about 20 per cent of the currency. A substantial amount of United States notes continued in circulation but, because of increases in gold and national bank notes, they had slipped definitely into a secondary role.

From 1914 to 1934 all of the growth in the currency circulation was in Federal Reserve notes. Since 1934 this growth has been shared by silver certificates. Federal Reserve notes account for 5.2 billion dollars or 66 per cent of the total circulation. Silver dollars and silver certificates account for about 20 per cent, and subsidiary and minor coin, for which the percentage has not changed much since 1860, account for 7 per cent. The relative importance of United States notes has dwindled to about 3 per cent, while national bank notes and Federal Reserve Bank notes are disappearing from circulation.

SUMMARY

After a century and a half of evolution this country's system of providing currency for circulation has been so organized that the volume of currency is sensitively responsive to changes in the public's demands. The Federal Reserve System is in a position to meet all the currency demands that are likely to arise. Some problems, however, still remain. There are administrative problems of efficiency and economy in distributing cash. More important are the unnecessary complications and overlapping authorities in connection with the issuance of the different kinds of currency. But the most serious currency problems that remain to be solved have to do with the effects of currency issues on bank reserves and on the general credit situation. These problems are discussed in other papers in this volume.

BANKING STRUCTURE OF UNITED STATES

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BANKING STRUCTURE OF UNITED STATES

The banking structure of the United States is a product of evolutionary changes peculiar to this country. It differs in important respects from the banking structure of other leading countries. It comprises thousands of relatively small single-office banks, some very large banks, and a considerable number of banks, small and large, with branches. Bank charters may be issued by either Federal or State authorities. Banks are regulated and supervised primarily by the chartering authority, but the great majority of State chartered banks are also under Federal supervision. Banks are mostly independent operating units, locally owned, but they make extensive use of correspondent relationships. About 90 per cent of the banks participate in Federal deposit insurance; about 40 per cent of them, holding over 70 per cent of all bank deposits, are also members of the Federal Reserve System.

Banking in other leading countries is conducted by a relatively few large banks with many branches. In those countries there is less supervision of banks by governmental authorities and close internal supervision (of branches by the head office). There is no governmental provision for deposit insurance. In some foreign countries the *central* banks, particularly those with many branches, deal directly with the general public to a considerable extent. Some of them also provide general collection and clearing facilities as the Reserve Banks here do for their member banks, but generally speaking these facilities abroad are supplied by the private commercial banks rather than by the central banks.

American banks taken as a whole render a wide range of services. While some of them confine their operations to a narrow field, others render such a variety of services as to be termed "department store" banks. Those that provide savings facilities have to meet the competition of other institutions operating in the same general field—building and loan associations, for example. In some of their lending activities banks compete with a variety of money-lending

agencies operating in more or less specialized fields, some sponsored or regulated by the Government. Some of these money-lending organizations look to the banks as important sources of the money which they lend.

KINDS OF BANKS

The line of demarcation between banks and other types of institutions that lend money or provide savings facilities is constantly shifting. It is difficult, therefore, to formulate an absolute rule by which banks might be clearly distinguished from all other financial institutions. For present purposes, however, it may be said that a bank is a financial institution which accepts money from the general public for deposit in a common fund, subject to withdrawal or to transfer by check, and makes loans to the general public. This definition comprehends national banks, State banks, trust companies, mutual and stock savings banks, industrial banks, and "private" or unincorporated banks. It excludes building and savings and loan associations, mortgage companies, finance companies, insurance companies, and credit agencies owned in whole or in part by the Federal Government.[1]

In order to throw light on the composition of our banking structure, this paper will be devoted largely to a discussion, first, of the significant differences between the principal types of banks and, second, of the characteristics of so-called commercial banks (defined later on).

Unit and Multiple Office Banks. Although the banking structure of the United States is essentially a system composed of thousands of "unit" or single-office banks serving their respective local communities, in many sections of the country there has been some development of multiple office banking.[2] This has manifested itself in two forms—the establishment of branches and the formation of bank "groups" and "chains." For statistical purposes a bank group or chain is usually regarded as consisting of three or more separately chartered banks brought together under some sort of common con-

[1] For a discussion of these financial institutions see the paper on "Credit and Savings Institutions Other Than Banks."

[2] For details see the paper on "Branch, Group, and Chain Banking."

trol which is exercised by a key bank, a holding company, an individual, or a small group of individuals.

At the end of 1939 the American banking structure included, in addition to approximately 15,000 banks of all kinds, about 3,600 branches (operated by approximately 1,000 banks). About half of the 3,600 branches were located in the same cities as their head offices, while the remainder served other communities. Nearly 60 per cent of the total number of branches were located in five States, the establishment of branches being prohibited or restricted as to location in many States.

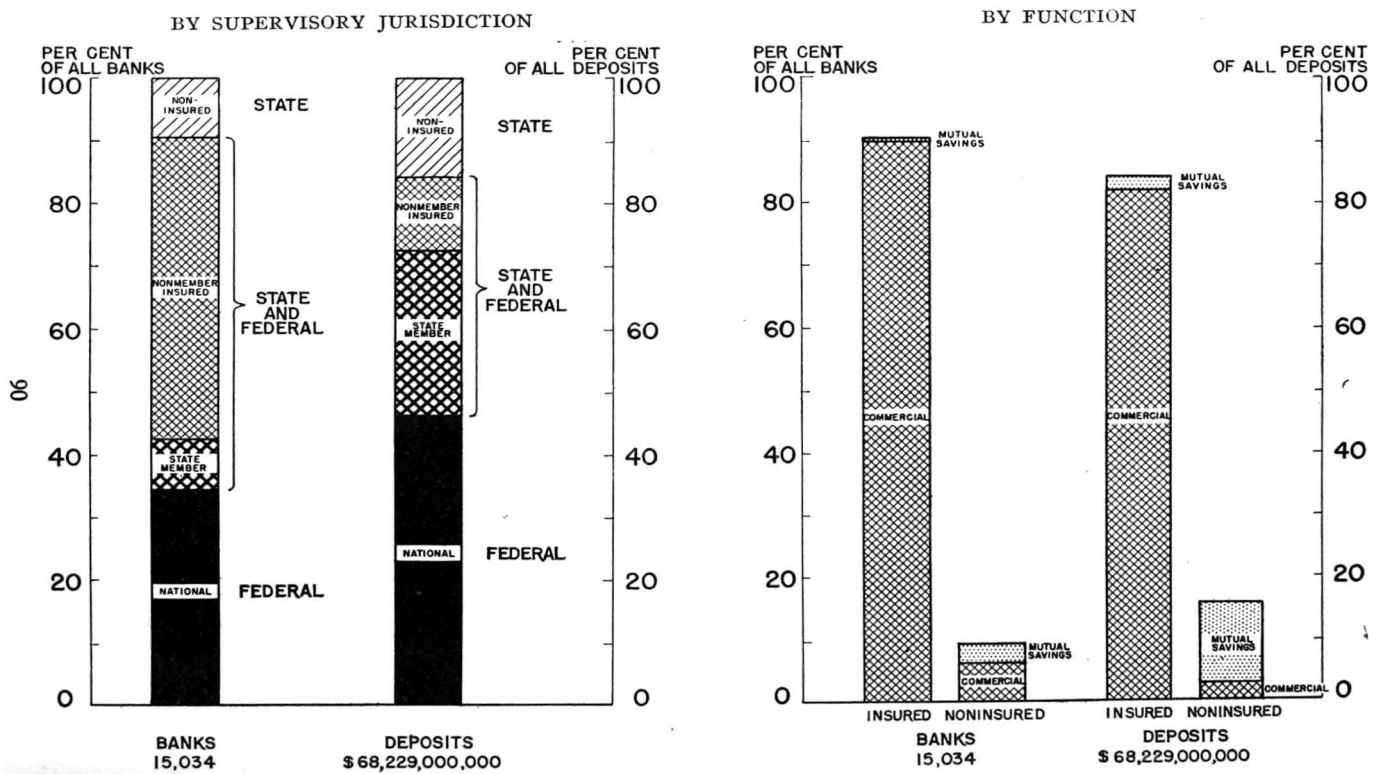
At the end of 1939, also, 851 banks were members of so-called "groups" or "chains," of which there were 137. Some of the group and chain banks are the key banks in their respective groups and chains and are of considerable size, and some of them are also among the principal branch operating systems. Most group and chain banks are concentrated in a relatively small number of States.

Seven large banks, located in New York, Boston, and San Francisco, operate one or more branches abroad. At the end of 1939 there was a total of ninety-two such branches or offices located in sixty-two cities in twenty-two foreign countries or dependencies or insular possessions of the United States. One bank had sixty-two foreign branches, another eleven, a third nine, a fourth seven, and three others had one branch each. Because of the disturbances brought about by the war some of these branches have, since the end of 1939, been temporarily or permanently discontinued.

Distribution of Banks by Supervisory Jurisdiction. From the standpoint of supervisory jurisdiction, banks may be classified as national banks, State banks,[3] and private banks; as member banks of the Federal Reserve System and nonmember banks; and as insured banks and noninsured banks. Each of these three classifications comprehends all of the banks. The "insured banks" group is, however, the most inclusive, because it embraces all national banks, all other member banks of the Federal Reserve System, and the great majority of nonmember banks.

[3] The term "State banks" is used here in its broadest sense and comprehends all banks operating under State charters. See Appendix Table 6, note b, p. 423.

NUMBER AND DEPOSITS OF BANKS, BY KIND, DECEMBER 31, 1939[a]



Insured and Noninsured Banks. It will be observed from the accompanying chart that the American banking structure is composed of approximately 15,000 banks, of which about 90 per cent are insured and consequently operate at least in part under the supervision of the Federal Government.[4] Insured banks in December 1939 held about 57.5 billion dollars or 84 per cent of the aggregate deposits of all banks in the country. Of the 10.8 billion dollars of deposits of noninsured banks, 9.1 billions were carried by mutual savings banks, which are concentrated largely in the Northeastern States. From 85 to 100 per cent of all banks (excluding mutual savings banks) in every State except Rhode Island, Kansas, Georgia, and South Carolina were participating in Federal deposit insurance at the end of 1939.[5]

All national banks and all other member banks of the Federal Reserve System are required by law to be members of the Federal Deposit Insurance Corporation. Banks that are not members of the Federal Reserve System may be admitted to Federal deposit insurance upon meeting certain prescribed conditions. Deposits in an insured bank are insured up to $5,000 for each depositor. Since more than 98 per cent of all deposit accounts in insured banks are of $5,000 or less, all but a small percentage of depositors are fully protected by deposit insurance. Large deposit accounts, however, comprise a big proportion of total deposits. Consequently only about 45 per cent of the dollar amount of all deposits in insured banks is protected by insurance.[6]

Member Banks and Nonmember Banks. Member banks comprise all national banks in the continental United States, as required by law, and such State banks and trust companies as have applied for and been admitted to membership upon complying with certain prescribed conditions. At the end of 1939 there were 6,362 member banks, or approximately 42 per cent of all banks in the country; they held 72 per cent of the total deposits of all banks.

The relative proportions of member and nonmember banks in

[4] See the paper on "Supervision of the Commercial Banking System."

[5] The percentages by States appear in the 1939 *Annual Report of the Federal Deposit Insurance Corporation*, pp. 90–97.

[6] *Ibid.*, 1938, p. 79.

individual States vary considerably. In the Northeastern States, taken as a whole, about three-fourths of all banks other than mutual savings banks are members of the Federal Reserve System.[7] In most of the Middle Western and Southern States the proportion of nonmember banks is larger than member banks, in some instances being over three-fourths of the banks.[8] Deposits of member banks exceed deposits of nonmember banks (other than mutual savings banks) in all but one State (Mississippi) and in some States are many times as large. Nearly all of the larger banks are members of the Federal Reserve System.

To be eligible for Federal Reserve membership a State bank must meet the capital requirements prescribed by law for the organization of a national bank, except that the minimum capital requirement for membership of a State bank is $25,000 compared with $50,000 for the organization of a new national bank. At the end of 1939 about 60 per cent of the 8,000 nonmember banks (other than mutual savings banks) were eligible for membership on the basis of minimum statutory capital requirements.

National and State Banks. Under our dual banking system a bank may, with the approval of the appropriate authority, be organized either as a national bank under the provisions of Federal law or as a State institution under State law. A State bank may also be converted into a national bank, and *vice versa.* National banks operate under the supervision of only Federal authorities; State banks that are members of the Federal Reserve System or have their deposits insured by the Federal Deposit Insurance Corporation operate under both Federal and State supervision; other State banks are supervised by State authorities. For reasons explained elsewhere, the number of State banking institutions has for years greatly exceeded the number of national banks.[9] At the end of 1939, however, national banks comprised about one-third of all banks in the

[7] Up to the end of 1940 no mutual savings bank had joined the Federal Reserve System.

[8] The considerations that deter banks from joining the Federal Reserve System are discussed in another paper, "Deterrents to Membership in the Reserve System."

[9] See the "Historical Introduction."

country and held about 55 per cent of all deposits in banks other than mutual savings banks.[10]

Private Banks. So-called "private" or unincorporated banks were formerly a very important part of the banking structure, but they have declined greatly in number and volume of business. In 1900 the number of unincorporated banks was about 5,000, which equalled the number of State banks and exceeded the number of national banks. In 1921, when the total number of banks was at its peak, there were about 1,200 unincorporated banks. Federal law took no cognizance of unincorporated banks until the Banking Act of 1933 prohibited any bank from receiving deposits unless it submitted to examination by State or Federal banking authorities. This seems to have deprived unincorporated banks of any substantial advantage they may have had over incorporated banks. At the end of 1939 there were only sixty-three unincorporated banks reporting to State banking authorities, and their deposits amounted to 750 million dollars.[11]

Distribution of Banks by Function. A broad functional distinction is commonly made between "mutual savings banks" and all other banks, commonly termed "commercial banks." This distinction is based on the substantially different kinds of deposit business cultivated, either mainly or exclusively, by these two groups of banks.

Mutual Savings and Commercial Banks. Mutual savings banks carry only savings and other time deposits (with some unimportant exceptions). All of them are State chartered institutions. Commercial banks—as a group—carry checking accounts and other deposits

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[10] There are some considerable differences by States in the relative number and deposits of national banks and State banks, respectively, but they are not particularly significant because many State banks, particularly the larger ones, have come under Federal supervision by joining the Federal Reserve System rather than by converting into national banks.

[11] By June 29, 1940, deposits of private banks had declined to only 146 millions, because the largest unincorporated bank had meantime converted into a trust company. Reports indicate that in three or four States there are a number of small private banks that do not report to State banking departments in spite of the provisions of Sec. 21 (a) of the Banking Act of 1933, as amended, but adequate statistical data thereon are not available.

subject to withdrawal on demand. Commercial banks include both Federal chartered and State chartered institutions and the group, therefore, cuts across the classification of banks by jurisdiction. The term "commercial bank" is somewhat of a misnomer, since the great majority of such banks also carry varying proportions of savings and time deposits. At the end of 1939 there were 551 mutual savings banks with total deposits of approximately 10.5 billion dollars. On the same date there were 14,483 commercial banks with deposits of 57.7 billion dollars, of which 15.5 billions were savings and other time deposits.

Stock Savings Banks. The great majority of so-called "stock savings banks" carry both demand and time deposits and transact the same kinds of business as national and State commercial banks. Consequently, as a group, stock savings banks are classed as commercial banks.[12] Like mutual savings banks, all stock savings banks are State chartered institutions. Ownership of stock savings banks, however, is represented by capital stock, whereas mutual savings banks are owned by their depositors, and are managed by boards of trustees, which usually are self-perpetuating bodies.

Industrial Banks. So-called industrial banks (of the Morris Plan type) are now usually counted as commercial banks. Some of them operate under the general banking codes of the States in which they are located and are authorized to do the same kinds of business as other banks. Others operate largely or entirely in the personal installment loan field and accept no deposits other than savings deposits. Many commercial banks now make personal installment loans on the same general basis as industrial banks. At the end of 1939, according to available data, the banking structure included 105 industrial banks with total deposits of 180 million dollars. These figures do not include so-called industrial loan companies, which in general make the same kinds of loans as industrial banks but do not accept deposits.

Trust Companies. Most trust companies transact a general bank-

[12] Separate statistics on stock savings banks are no longer published for the country as a whole. They were last shown in the 1935 *Annual Report of the Comptroller of the Currency.* That report (p. 756) shows 341 stock savings banks (306 of which were in Iowa).

ing business, the same as national and State commercial banks. For this reason they are counted as commercial banks.[13] Trust companies, however, are authorized by their charters to act in fiduciary capacities, whereas national banks—and, in general, any State banks which under State law may obtain trust powers—must make special application to the banking authorities to act in fiduciary capacities.

Cash Depositories. Cash depositories (located only in South Carolina) perform limited commercial banking functions; they carry only demand deposits. Their deposits must be carried in cash or redeposited in banks, except that excess funds may be invested in securities of the United States Government or the State of South Carolina and its political subdivisions, or in cotton producers' notes eligible for sale to the Commodity Credit Corporation. The depositories make a monthly service charge on a fee basis for services rendered.

COMMERCIAL BANKS

Although the approximately 14,500 commercial banks (heretofore defined as all banks other than mutual savings banks) with which the remainder of this paper will deal have been distinguished from other banks because as a group they hold checking or other demand deposit accounts, there is a wide variation in the character of their business. Some idea of the individual variation can be given by breaking down the commercial banks within the major bank classifications already given in several ways—by proportions of demand and time deposits, character of assets, size of banks, and so on.

Character of Deposits. If commercial banks were defined as those which hold exclusively demand deposits, only a small percentage could be so classified. An analysis made in December 1935

[13] Of the trust companies included in the banking statistics, seventy-three do not engage in banking operations and consequently have no deposits, though some of them have the power to do a general banking business. (Two national banks exercise only fiduciary functions.) A few of the non-deposit trust companies are members of the Federal Reserve System and a few others have their uninvested trust funds insured by the Federal Deposit Insurance Corporation. Consequently, the seventy-three non-deposit trust companies have not been segregated from the trust companies that perform banking functions but are counted as commercial banks.

disclosed that there were only about 500 such banks, that only one out of every ten commercial banks had as much as 90 per cent of its deposits in the form of demand deposits, and that about 40 per cent

PERCENTAGE DISTRIBUTION OF COMMERCIAL BANKS AND THEIR DEPOSITS BY RATIO OF DEMAND DEPOSITS TO TOTAL DEPOSITS, DECEMBER 31, 1935[a]

CLASS OF BANK	RATIOS OF DEMAND DEPOSITS TO TOTAL DEPOSITS					
	Less than 10 (per cent)	Less than 30 (per cent)	Less than 50 (per cent)	50 and over (per cent)	70 and over (per cent)	90 and over (per cent)
Percentage distribution of banks:						
National	0.2	14.4	43.2	56.8	30.1	9.7
State member	0.4	9.6	42.2	57.8	27.9	9.2
Nonmember	0.9	9.7	35.8	64.2	34.5	10.2
All commercial banks	0.6	11.4	38.9	61.1	32.4	10.0
Percentage distribution of deposits:						
National	0.1	5.1	23.2	76.8	61.8	17.1
State member	0.2	2.0	16.8	83.2	68.7	46.9
Nonmember	5.2	20.1	50.2	49.8	24.1	8.7
All commercial bank deposits	0.9	6.2	25.0	75.0	58.7	25.1

[a] These percentage distributions were derived from the number and total deposits of banks, distributed according to ratio of demand to total deposits, published in the August 1937 issue of the *Federal Reserve Bulletin*, pp. 785-86. A number of banking institutions which are included in the Dec. 31, 1939, statistics used elsewhere in this paper are excluded here. The percentage distribution would not be appreciably affected, however, by the inclusion of such banking institutions. An analysis made of member bank data as of Dec. 31, 1939, does not differ much from the percentage distribution as of Dec. 31, 1935, given in this table.

of all commercial banks held more time deposits than demand deposits. Some of the commercial banks—including some national banks—held less than 10 per cent of their deposits in the form of demand deposits.[14]

[14] See *Federal Reserve Bulletin*, August 1937, p. 785. A few banks with no demand deposits are included in the category "commercial banks," which, as already explained, actually comprehends all banks other than mutual savings banks. In December 1935 there were twenty-seven banks with no demand deposits classified as commercial banks; their deposits aggregated about 78 million dollars—about .2 of one per cent of all deposits held by banks classified as commercial. The largest of these institutions, with time deposits of 50 million dollars in 1935, was a trust company which, upon the establishment of Federal deposit insurance, transferred its commercial business to a newly organized and affiliated national bank, but continued its savings and trust departments.

The figures in the accompanying table show that about 43 per cent of the national banks, 42 per cent of the State member banks, and 36 per cent of the nonmember commercial banks held more time than demand deposits. In other words, there is little difference in the general character of deposits carried by member banks and nonmember banks, respectively. Member banks, however, include the largest commercial banks in the country, most of which have a preponderance of demand deposits. Consequently, the dollar volume of demand deposits is a much larger proportion of aggregate deposits of member banks than of nonmember banks.

There are some big differences by States and regions in the relative volume of demand and time deposits held by individual commercial banks of all classes.[15] In the Northeastern States, where there exists a highly developed system of mutual savings banks with 10 billion dollars of savings and other time deposits, the average commercial bank nevertheless holds a relatively much larger proportion of time deposits than, for example, the average commercial bank in the Southern and Western States. Such regional differences in the proportions of time and demand deposits carried by individual banks are, of course, due to a variety of factors. Among them are the character and extent of economic development; the relative importance of the various kinds of agencies and means for accumulation and utilization of savings; the influence of existing and, perhaps more important, of former provisions of State and national banking laws; and the habits of the bankers and the general public.

Character of Assets. In recent years the demand for bank loans has declined far below the level of the 1920's, and commercial banks now hold an abnormal volume of idle cash reserves and a heavy portfolio of Government securities. A current classification of commercial banks by character of assets will not, therefore, have the same significance as in the 1920's. Moreover, commercial banks have been enabled, by legislation enacted since that time, to go much further into the field of real-estate financing than they formerly could. Many of them, also, have opened personal installment loan departments, through which they make installment loans of the kinds made by industrial banks and finance companies.

[15] *Ibid.*

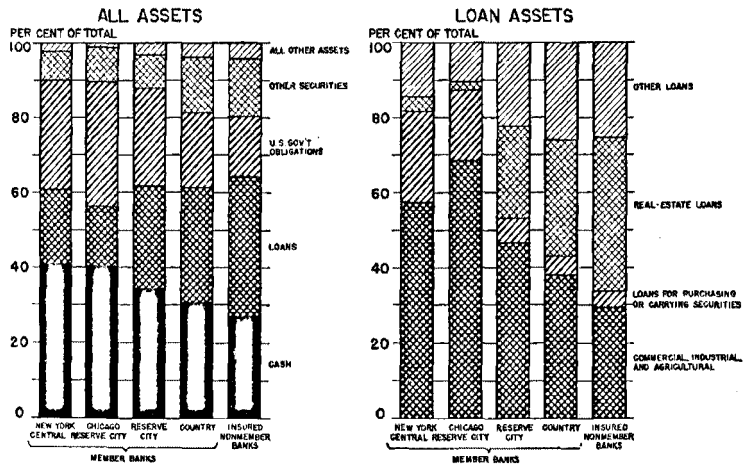
A distribution of the assets of the principal classes of commercial banks as of December 31, 1939, is shown in the accompanying chart, together with a distribution of aggregate loans among their component parts. It will be observed that member banks in the two central reserve cities (New York and Chicago) held about 40 per cent of their assets in the form of cash (including reserves and bank balances), compared with 27–34 per cent held by the other principal classes of member and nonmember commercial banks. The higher percentage of cash assets held by banks in the two principal financial centers reflects in part their higher legal reserve requirements. It is also due to the fact that legal reserves of nonmember banks and uninvested funds of country banks are in large part deposited at banks in the financial centers, which under present conditions hold a substantial portion of such balances uninvested.

Member banks in the two central reserve cities had a smaller percentage of their assets in the form of loans than any of the other classes of commercial banks—20 per cent in New York and 16 per cent in Chicago, compared with averages ranging between 27 and 37 per cent elsewhere. Contrariwise, central reserve city banks held somewhat larger portfolios of securities in relation to total assets—37 per cent in New York and 43 per cent in Chicago, compared with 31–35 per cent elsewhere. The average maturity of securities held by member banks in the two central reserve cities was much shorter than in the case of banks outside these cities: about 50 per cent of all securities held by New York and Chicago member banks matured in five years or less, compared with 30–36 per cent at the other commercial banks. United States Government obligations constituted a much larger proportion of the securities portfolio of central reserve city and reserve city banks than of country banks. A substantial portion of the "other securities" held by country banks were obligations of States and political subdivisions.

In some respects the distribution of the principal classes of loans, in relation to total loans, is more significant than the distribution of total assets, because at the present time such a large portion of bank assets are idle funds awaiting loan and investment opportunities. The accompanying chart shows that about 60 per cent of total loans of member banks in the central reserve cities were

commercial, industrial, and agricultural loans, compared with about 30–47 per cent at other classes of member and nonmember commercial banks. Member banks in New York City also held a much larger proportion of loans for purchasing and carrying securities, mostly to brokers and dealers. These differences between classes of banks in the volume of commercial, industrial, agricultural, and security loans are largely offset by the variations in the volume of

PERCENTAGE DISTRIBUTION OF ASSETS OF INSURED COMMERCIAL BANKS, DECEMBER 31, 1939[a]



[a] For data, see Table 7, p. 424.

real-estate loans. Only 4 per cent of the loans of central reserve city banks were real-estate loans, compared with 25–40 per cent at other commercial banks. The relatively high percentage shown for reserve city member banks does not, of course, signify that banks in all reserve cities hold a relatively large volume of real-estate loans. There is, in fact, a wide variation in the ratio of real-estate loans to total loans among individual reserve cities.

The group "all other loans" represents personal loans to individuals and unclassified loans. Such loans amounted to 14 per cent of total loans at central reserve city banks, and to 22–26 per cent at other classes of commercial banks.

The foregoing percentages are averages for all of the banks in each of five groups of commercial banks. Within each of these groups there are great differences in the relative proportion of the various kinds of assets held by individual banks. An appended table, which shows how the distribution of assets varies for member banks having different amounts of deposits, illustrates the possibilities of variation within one class of banks.[16]

Fourteen per cent of all member banks had less than $20 of each $100 of total assets invested in loans, but another 14 per cent had at least $50 of each $100 of total assets in the form of loans. The most common proportion was $30–$40 per $100 of total assets. The proportion of bank funds invested in loans declined as the size of bank increased: 28 per cent of all member banks in the smallest-size group had at least half of their assets in the form of loans; no bank in the largest-size group had such a high proportion of its funds invested in loans.

About 31 per cent of all member banks had $40 or more of every $100 of total assets invested in securities, 23 per cent had $20–$30 so invested, and another 23 per cent had $30–$40. In general, the proportion of bank funds invested in securities increased as the size of bank increased, but at least 10 per cent of the banks in every size group except that consisting of the smallest banks held securities equal to at least half of total assets.

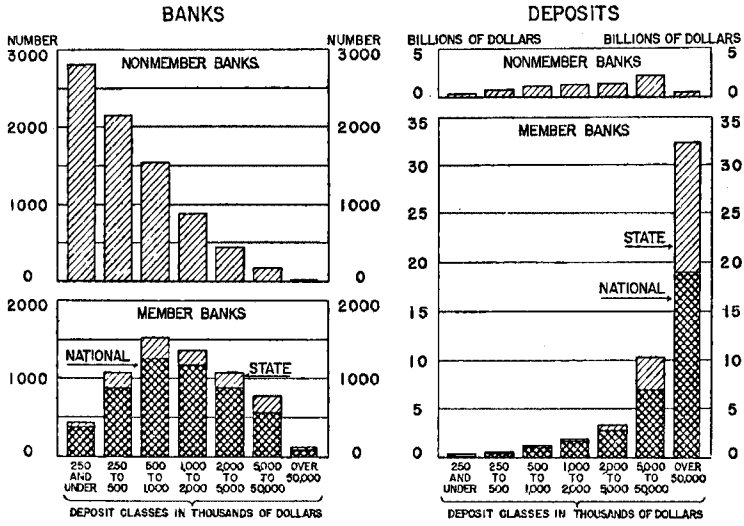
Sixteen per cent of all member banks held cash assets amounting to at least $40 in every $100 of total assets. About 30 per cent of all banks in the largest-size group held this proportion of cash assets. The most common proportion of cash assets was from $20 to $30. There was considerable variation in the proportion of cash assets held by banks within each size group, but in general the larger banks held a relatively larger proportion of cash assets.

Size of Banks. Most of the 14,500 commercial banks are of relatively small size, but some are among the largest banks in the world. The accompanying chart shows the number and deposits of each principal class of commercial banks (other than private banks) grouped according to size of bank. About 9,500 commercial banks,

[16] See Table 8, p. 425.

or two-thirds of the total number, had deposits of less than one million dollars each. The aggregate deposits of these banks were 3.8 billion dollars, or approximately 7 per cent of the aggregate deposits of all commercial banks. There were over 3,000 banks with deposits of less than $250,000 each. This group of small banks, amounting to about 22 per cent of all commercial banks, held somewhat less than one per cent of the aggregate deposits of all commercial banks.

COMMERCIAL BANKS, BY NUMBER AND SIZE, DECEMBER 31, 1939[a]



[a] For data, see Table 9, p. 426.

Among the large banks are three with deposits of 2 to 3 billion dollars, and five others with deposits of over one billion dollars each. There were 133 commercial banks with deposits of 50 million dollars and over. This group of banks was less than one per cent of the total number of commercial banks, but it held 58 per cent of the aggregate deposits of all commercial banks.

The larger banks are, of course, located in the financial centers and nearly all of them are members of the Federal Reserve System. As the size of bank increases, the proportion of member banks increases. Most of the smaller banks, for reasons explained in another paper, are not members of the Federal Reserve System.

Size of Bank Cities. The distribution of commercial banks according to the size of the city in which they are located follows the same general pattern as the size-of-bank distribution just given, because in general the banks having a relatively small amount of deposits are located in small places. There are, of course, exceptions. In some large cities, for example, particularly where branch banking is prohibited, there are considerable numbers of relatively small neighborhood banks. On the other hand, some banks of considerable size, though located in small cities or towns, may serve surrounding areas of considerably larger population, either directly or through branches. By and large, however, there is a direct relationship between the size of the bank and the population of the city or town in which it is located.[17] There are relatively more member banks than nonmember banks in the larger cities, and more nonmember banks in the small towns and cities.

The banking structure is made up predominantly of thousands of relatively small single-unit banks, usually located in places having small populations. There has, however, been a considerable growth in the number of branches, both in large cities and in small places. Of the 18,000 commercial banking offices (banks plus branches) at the end of 1939, over half were located in places with a population of 2,500 or less.[18] At the other extreme, about 8 per cent of all commercial banking offices were located in places with a population of 500,000 or more. The census shows that 44 per cent of the total population is in rural territory or urban places with populations of 2,500 or less, and 17 per cent in places with populations of 500,000 or more. Thus the average number of persons served by a banking office located in a big city is, as might be expected, considerably larger than the number of persons served by a bank or branch located in a small community.

Earnings. Rates of bank earnings reflect the wide variations in the character of bank assets and deposits already described. Perhaps in a more important degree, they also reflect differences in the level

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[17] A cross classification by size of bank and population as of Dec. 31, 1935, appears in the *Federal Reserve Bulletin* for August 1937, p. 793. A later cross classification has not been made.

[18] See Appendix Table 10, p. 427.

of interest rates prevailing in the different sections of the country. There is, consequently, a wide range in the rates which banks earn on their assets and on their capital funds, as may be seen from the accompanying table.

In 1939 net current earnings (current earnings less current expenses) of all insured commercial banks taken as a whole amounted to 75 cents on every $100 of total assets.[19] Taken individually, the most common rates were from $1.00 to $1.50 per $100 of total assets, but rates of 50 cents to $1.00 were nearly as common. In relation to

PERCENTAGE DISTRIBUTION OF INSURED COMMERCIAL BANKS BY RATES OF NET CURRENT EARNINGS AND NET PROFITS DURING 1939[a]

RATE PER $100 OF TOTAL ASSETS	PERCENTAGE OF BANKS HAVING SPECIFIED RATES OF NET CURRENT EARNINGS ON TOTAL ASSETS	RATE PER $100 OF TOTAL CAPITAL ACCOUNTS	PERCENTAGE OF BANKS HAVING SPECIFIED RATES OF EARNINGS AND PROFITS ON CAPITAL ACCOUNTS	
			Net current earnings	Net profits
Less than $0.50[b]	8.0	Less than $5.00[b]	17.6	35.0
$0.50–0.99	27.2	$5.00–$9.99	43.3	36.9
$1.00–1.49	33.5	$10.00–$14.99	26.2	19.4
$1.50–1.99	18.7	$15.00 and over	12.9	8.7
$2.00–2.49	7.7			
$2.50 and over	4.9			
Total	100.0	Total	100.0	100.0

[a] *Annual Report of the Federal Deposit Insurance Corporation*, 1939, pp. 184 and 57.
[b] Including some banks with net losses.

invested capital, net current earnings of all insured commercial banks in 1939 amounted to approximately $7.00 per $100 of capital accounts. Net profits (the excess of all earnings, profits, and recoveries over expenses, losses, and depreciation charges) amounted to approximately $6.00 for each $100 of capital accounts. Taken individually, the most common rates of net current earnings per $100 of capital accounts were from $5 to $10, but nearly 40 per cent of the banks reported higher rates. The most common rates of net profits per $100 of capital accounts also were from $5 to $10, but

[19] Corresponding data for noninsured banks are not available.

about one-third of the banks reported rates below this range and many reported higher rates.

In general, rates of net current earnings on assets decrease as the size of bank increases.[20] This is due to a number of factors. As already indicated, the larger banks hold relatively more non-earning assets (mostly cash assets) than the smaller banks and a greater part of their earning assets are in the form of securities, the average rates of return on which are considerably lower than on loans. They also operate in more highly competitive money markets and consequently make their loans at lower average interest rates and hold a bigger volume of short-term low interest rate securities. The resulting wide differences by size of bank in rates of net current earnings on assets do not, however, carry over into the rates of return on capital; in fact, net current earnings of the big banks in relation to capital accounts are somewhat higher on the average than those of very small banks. This is largely a result of the fact that capital funds of the large banks are much lower in relation to assets and deposits than are capital funds of the small banks.

There is considerable correspondence between the section of the country in which a bank is located and the rate of gross earnings on assets. This is particularly true in the case of the smaller banks, because there are bigger differences in the level of interest rates charged by small banks in the different parts of the country than in rates charged by large banks wherever located. Differences in rates of gross earnings of banks located in the various sections of the country are generally reflected in somewhat higher rates of net earnings. In the three Eastern Federal Reserve districts, for example, member banks with deposits of $250,000–$500,000 averaged in 1939 approximately $4.00 gross per $100 of total assets, compared with about $4.80 in some of the Southern and Western districts. These differences were carried in part into net earnings, because the somewhat higher rate of operating expenses of the small banks in the South and West did not entirely offset their higher rate of gross earnings. The higher rate of net current earnings on total assets was, in turn, reflected in a higher rate of return on capital accounts at small banks in the South and West.

[20] See Table 11, p. 427.

The proportion of savings and other interest bearing time deposits is also an important factor in the rate of return that a bank makes on its capital investment. In 1939 the average member bank with less than one-fourth of its deposits in the form of savings and time accounts reported net current earnings of $9.20 per $100 of total capital accounts, compared with $6.20 reported by the average member bank with three-fourths or more of its deposits in savings and other time accounts. This differential does not, however, hold true in all sections of the country. In the Northeastern States member banks with relatively large time deposits reported higher rates of net current earnings on capital accounts than banks with low proportions of time deposits. In other sections of the country, however, member banks with relatively large time deposits reported, on the average, lower net earnings on capital accounts than banks with low proportions of such deposits.[21]

RELATIONSHIPS AMONG BANKS

Since the vast majority of the 15,000 commercial and savings banks in the United States are single-office institutions, locally owned and controlled, they operate independently of one another at least in providing the primary banking services of receiving deposits and making loans. Banks do, however, have business relationships with one another, if for no other reason than to provide some of the broader banking services which are required even in the smaller communities. These interbank contacts are exemplified in the vast network of correspondent banking relationships. In addition, banks in the larger cities are generally associated for their mutual interest in local clearing-house associations, and banks throughout the country are associated with one another through membership in such groups as the American Bankers Association and State bankers associations.

Correspondents. Early in the history of American banking, banks found it convenient and in many cases necessary for business purposes to maintain deposit accounts (interbank balances) with other banks. Generally speaking, the smaller banks would maintain accounts in New York and in their respective regional trade centers,

[21] See "Member Bank Operating Ratios, 1939," *Federal Reserve Bulletin*, June 1940, pp. 588-601.

while the larger banks would maintain balances in New York and in a number of other trade and financial centers. Prior to the establishment of the Federal Reserve System, nearly all banks were permitted to count interbank balances as part of their legal reserves. National banks and State member banks are now required to carry all their legal reserves with the Reserve Banks. Since the Banking Act of 1933 prohibited the payment of interest on demand deposits, correspondent balances have ceased to be a source of revenue to the depositing banks, but correspondent banking relationships are still an important part of our banking system.

City banks perform some services for their country correspondents which are similar to services performed by the Federal Reserve Banks for member banks. Banks send checks, maturing notes, bonds, and coupons to their correspondent banks for collection and credit. They draw drafts on the city correspondent and thus provide local customers with acceptable exchange for making out-of-town payments. They use the safekeeping facilities of the city correspondent, including the clipping and collection of maturing coupons. City banks also perform some services for their correspondents which the Federal Reserve Banks do not perform for member banks. For example, they may furnish their correspondents investment counsel and advice, credit information, etc.

At the end of 1939 over 3.5 billion dollars of interbank balances were on deposit in New York banks, nearly 900 million dollars in Chicago, about 3.6 billions in other reserve city banks, and about 600 millions at country member banks. The total of interbank balances in June 1940 was over 9 billion dollars. These balances are not generally maintained with nonmember banks; the total amount of bank balances on deposit at all insured nonmember commercial banks was only about 100 million dollars. Balances on deposit with city correspondents are, in so far as member banks are concerned, quickly convertible into reserve balances with Federal Reserve Banks, by means of the telegraphic transfer facilities of the Federal Reserve System.

Clearing Houses. The local clearing house is an association of banks in the same city (sometimes in two or more adjacent cities) founded for the primary purpose of exchanging checks among the

participating banks and thereby facilitating prompt collection. Beyond this purely mechanical function, the local clearing-house association frequently serves as a medium for united action on problems affecting the common welfare of the associated banks, such as the regulation of interest payments on deposits, adoption of schedules of service charges, and fixing of business hours. Some clearing-house associations have maintained an examining force for the purpose of assuring themselves of the solvency of the associated banks, but this practice has been largely discontinued. Some maintain central credit files for the use of the associated banks.

In addition to purely local or city clearing houses, there have been formed, particularly in the more recent years, clearing-house associations covering a county or even a larger trade area.

Bankers Associations. By and large each bank is an independent unit solely responsible for its own policies and operations. There are, however, many occasions for bankers to discuss their common problems. Apart from the opportunities for such discussion that arise from correspondent and clearing-house relationships, there are opportunities presented by the numerous State, national, and regional meetings of the bankers associations and affiliated organizations. These meetings not only provide a forum for the discussion of problems of common interest, but they afford bankers a means of giving effective expression to their views on banking legislation and other matters of similar nature. The educational work of the bankers associations, through the Graduate School of Banking, the State university conferences, and the local American Institute of Banking chapters, provides an opportunity for bringing about a considerable degree of uniformity in the banker's approach to his problems and a generally higher standard of banking practices.

SUMMARY

The American banking structure is composed of 15,000 banks. The banks are chiefly small, locally owned institutions, with no branches. Some of them, however, are quite large, and a few have numerous branches, the total number of branches being 3,600.

About a third of the banks are Federal chartered, i.e., national banks, but 90 per cent of all banks are under some degree of Federal

supervision because of membership in the Federal Reserve System or participation in Federal deposit insurance. Insured banks comprise all national banks, all other member banks of the Federal Reserve System, and the great majority of nonmember banks. Approximately 42 per cent of all banks in the country are members of the Federal Reserve System, and they hold 72 per cent of the deposits of all banks.

A broad functional distinction is made between mutual savings banks and all other banks. The latter are commonly termed "commercial banks"; there are about 14,500 of them. Mutual savings banks, of which there are about 500, do not accept demand deposits. Most commercial banks accept both demand and time deposits. About 40 per cent of them hold more time deposits than demand deposits. Only a relatively small number hold exclusively demand deposits. There is little difference in the character of deposits carried by member banks and nonmember banks respectively.

Between 30 and 40 per cent of the assets of commercial banks are in the form of reserves, vault cash, and bank balances. Another 30–40 per cent consist of United States Government and other securities. Loans average about 20–40 per cent of assets. Banks in the leading financial centers hold a larger proportion of commercial and industrial loans, and loans for purchasing or carrying securities, than do other banks; they hold a smaller proportion of real-estate loans and "all other" loans.

Approximately two-thirds of the commercial banks have deposits of less than one million dollars each. Over 3,000 have deposits of less than $250,000 each. Three banks have deposits of between 2 and 3 billion dollars. In December 1939 there were 133 incorporated commercial banks with deposits of 50 million dollars or more. They held 58 per cent of the deposits in all commercial banks.

The great majority of banks are single-office units located in places with small populations. Over one-half of the 18,000 commercial banking offices (banks plus branches) are located in places with populations of 2,500 or less. About 8 per cent are located in places with a population of 500,000 or more. Relatively many more nonmember banks than member banks are located in the small towns and cities.

There is a wide range in the rates of bank earnings on assets and on invested capital. In 1939 net current earnings of insured commercial banks amounted to 75 cents per $100 of assets and to $7.00 per $100 of capital accounts. Net profits were approximately $6.00 per $100 of capital accounts. The most common rate of net current earnings per $100 of capital accounts was between $5 and $10. Rates of earnings on assets are considerably lower at large banks than at small banks. In relation to capital accounts, however, net earnings of the larger banks are not much below those of the smaller banks.

To provide interregional banking services banks have extensive correspondent relationships. Banks generally maintain substantial balances with correspondent banks in regional trade centers and leading financial centers. These city correspondents perform a variety of services for out-of-town banks. Many banks are associated with one another through local clearing houses, the primary function of which is the exchange of checks among the participating banks. Banks are also associated with one another through membership in national, regional, and State bankers associations.

BRANCH, CHAIN, AND GROUP BANKING

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BRANCH, CHAIN, AND GROUP BANKING

About one in nine of the banks in the United States are organizations or parts of organizations that conduct operations in more than one place of business. They are parts of so-called multiple office banking systems.

The types of transactions handled by multiple office banks differ very little from those handled by unit banks. Multiple office banks are governed by the same general laws that govern other banks but in most instances are also subject to certain special provisions of law. One of the principal factors that differentiates multiple office banks from unit banks is the maintenance and operation of a number of banking offices under common ownership or direction.

There are three types of multiple office banking, usually referred to as branch, chain, and group banking. These are described separately in the following pages. No attempt is made to discuss the various controversial issues that surround this subject or to appraise the advantages and disadvantages, or the merits and demerits, of each type. Instead an effort is made to present briefly pertinent facts concerning the legal status, the development over a period of years, and the present position in our banking structure of each type of multiple office banking.

BRANCH BANKING

Branch banking is a type of multiple office banking under which a bank as a single legal entity operates more than one banking office. If a bank operates a single branch office, irrespective of size, it is included in the statistics for branch banking. Slightly more than three-fourths of the banks in the United States that operate branches have only one or two branches each and in many cases these are situated in the same or nearby towns. They are often erroneously referred to as branch banking systems but they are in no sense real branch banking systems, certainly not as that term is used in

reference to branch banking in Canada and certain European countries.

The branch banking form of organization occupied a relatively important position in the early years of banking in the United States. However, it failed to maintain a definite place for itself in the banking structure, particularly toward the end of the nineteenth century, when the number of unit banks increased greatly. In fact, in some instances opposition to branch banking crystallized into restraining legislation or adverse interpretation of existing banking laws. Since the beginning of the present century, however, notably during the 1920's, there has been considerable growth in the number of branches. Significant changes in banking laws have made this growth possible.

Legal Status of Branch Banking. The right of a bank to have more than one place of business is subject to many restrictions under Federal and State laws. Federal law concerning branch banking defers to State law in some important respects but is more restrictive in others. The present situation is the result of repeated attempts by authorities to eliminate, and no doubt in some cases to retain or acquire, the competitive advantages accruing to institutions operating under different banking conditions and different banking laws within the same State.

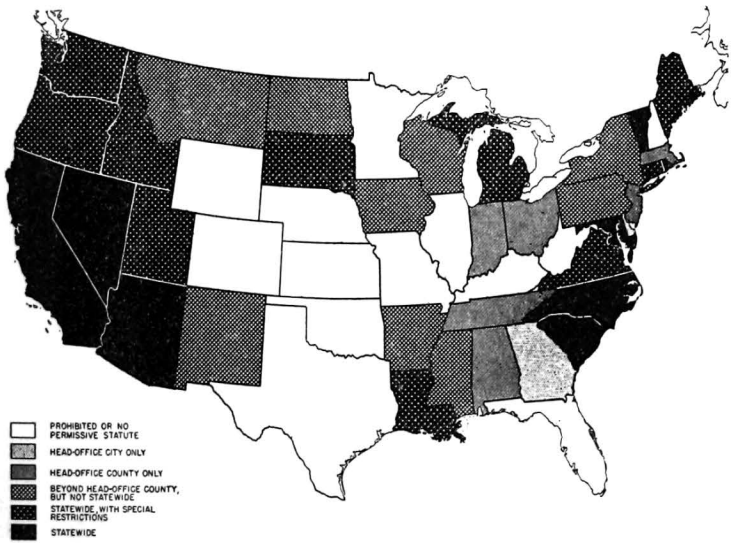
State Laws. From practically the beginning of banking in the United States, occasional mention of branch banking is found in State laws, but since 1900 the amount of legislation on the subject has greatly increased. At the present time, thirty-five States and the District of Columbia specifically authorize branch banking and thirteen other States prohibit it or have no permissive statutes.

Variations in State laws respecting branch banking are so numerous that generalizations concerning them are inadequate. The accompanying map shows the maximum areas within which branch systems may operate under the statutes of the respective States. Of the thirty-five States now authorizing branch banking under widely varying circumstances, eighteen permit the establishment of branch offices throughout the State, nine beyond the lines of the head-office county but not throughout the State, six only within the county in which the head office is located, and two only within the head-office city.

Other points of variation in State laws arise from attempts to consider the relation of branches to the needs of a community for banking services. These are embodied in conditions and limitations with reference to the population of the head-office city and branch towns and with reference to the existence of other banking institutions in the community to be served by a proposed branch.

There are also many variations in State laws with respect to minimum capital requirements, particularly since these require-

MAXIMUM AREAS FOR OPERATION OF BRANCHES IN THE VARIOUS STATES
AUGUST 15, 1939[a]



[a] No significant changes have been noted since the date this map was prepared. For details, all of which could not be shown on this map, see *Federal Reserve Bulletin* for October 1939, pp. 851–70.

ments are usually related to the population and geographic factors referred to above. In most of the State laws that authorize branches, the minimum capital required for their establishment outside the head-office city is less than that required for national or State member banks under the provisions of Federal statutes.[1] This fact, together with different definitions of the word "branch," has

[1] The laws of Alabama, Connecticut, and Idaho are exceptions.

had an important bearing upon membership in the Federal Reserve System. Some States authorize "additional offices," "stations," "agencies," etc., as distinguished from full-power branches, and some impose limitations and restrictions upon the functions performed at branches, offices, and agencies. Under Federal law "branches" only are authorized and the term is broadly defined and specifically includes any branch place of business "at which deposits are received, or checks paid, or money lent."

Federal Laws. Although the Federal charters of the first and the second Bank of the United States provided for the operation of branches, the National Bank Act passed in 1863 contained no specific mention of branch banking. An amendment in 1865, however, providing for the conversion of State banks into national banks, permitted converted banks to retain previously established branches under certain conditions. With this exception, for more than half a century the act was construed to prohibit national banks from having branches.

The Federal Reserve Act of 1913 extended the privilege of membership in the System to State banks without prohibiting them from operating branches. However, it did not accord national banks, for which membership was compulsory, the right to establish branches. A policy promulgated by the Federal Reserve Board in 1915 and formulated into a regulation in 1924 narrowed the differential to the extent that State member banks were required to obtain the Board's approval before establishing additional branches. Moreover, in 1922 the Comptroller of the Currency, by administrative interpretation of the general laws of the United States, departed from precedent and permitted national banks to establish additional offices, or branches presumably with limited powers, in head-office cities in States where State banks were permitted to operate branches.

The McFadden Act of 1927 contained specific provisions concerning branches which were applicable to both State member and national banks. It permitted State banks which were members of the Federal Reserve System, or which subsequently became members of the Federal Reserve System under their own charters or by conversion into national institutions, to retain all branches legally

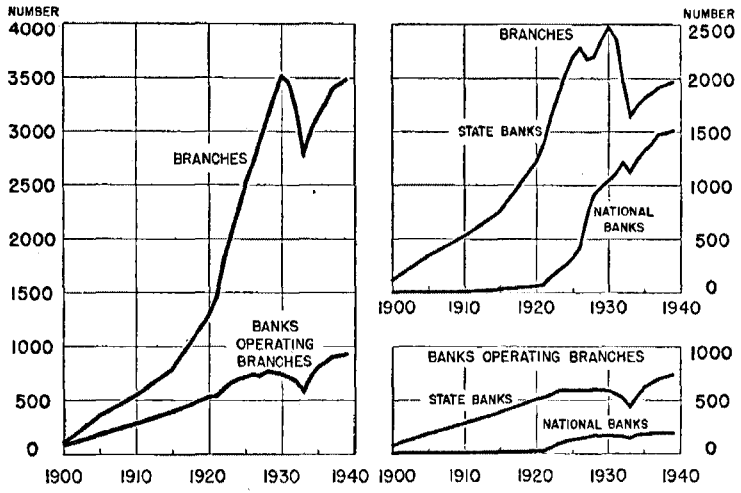
established prior to the date of approval of the act, regardless of location, but forbade them to establish any new branches outside the corporate limits of their head-office cities. It specifically authorized national banks to retain branches established prior to the date of the act and to establish new branches in their head-office cities where State banks in the same location were permitted to do so under State law. In this way, requirements concerning branches of national and State member banks were brought closer together.

The Banking Act of 1933 amended the Federal Reserve Act so as to empower national and State member banks to establish branches outside of their head-office cities where permitted by the laws of the State in which the banks operated. This deference to the provisions of State laws defining the areas in which branches might be established in effect left the further development or restriction of branch banking to the initiative of the several States. However, because of the minimum capital requirements prescribed by the act for national and State member banks, which are considerably larger than corresponding requirements for nonmember banks in many States, many national and State member banks have been practically precluded, and others have been inclined to refrain, from establishing branches outside of their head-office cities even though authorized to do so.

When permanent insurance of bank deposits was provided by the Banking Act of 1935, Federal control over branch banking was further extended. Although the act contained no prohibitions against the retention of all branches established by State nonmember banks prior to admission to insurance, it provided that such banks (with the exception of those located in the District of Columbia) must obtain the written consent of the Federal Deposit Insurance Corporation before moving a branch from one location to another or opening a new one, and set forth certain factors for consideration by the Corporation in granting or withholding its consent. It contained no minimum capital requirement for each branch such as is prescribed in the law with respect to branches of national and State member banks. The establishment of branches by noninsured State banks is still under the exclusive jurisdiction of the respective States.

Development of Branch Banking. Changes in Federal and State laws have been accompanied by changes in both the number of banks operating branches and the number of branches operated. Most of these changes have occurred since the beginning of the present century. The accompanying chart shows this development as well as the distribution between national and State banks. The number of banks operating branches has increased from 87 in 1900 to 934 at the end of 1939, and the number of branches has increased from 119 to 3,491.

BANKS OPERATING BRANCHES AND THEIR BRANCHES[a]



[a] For data, see Table 12, p. 428.

In 1921 there were over six times as many banks operating branches, and over twelve times as many branches, as there were in 1900, and practically all of the increase was accounted for by State banks. During this period the national banking laws were interpreted to prohibit branch banking while the laws of several States permitted it. During the years 1922–1928 the number of banks operating branches continued to increase, rising from 547 to 774, or by 227. National banks accounted for almost two-thirds of this growth. The number of branches more than doubled, this increase being almost equally divided between national and State banks.

The change in policy of the Comptroller of the Currency—that is, his refusal to continue to interpret the laws so as to deny national banks the right to establish limited power branches in head-office cities in States with laws permitting State banks to operate branches —and the McFadden Act of 1927 were dominant factors in this development.

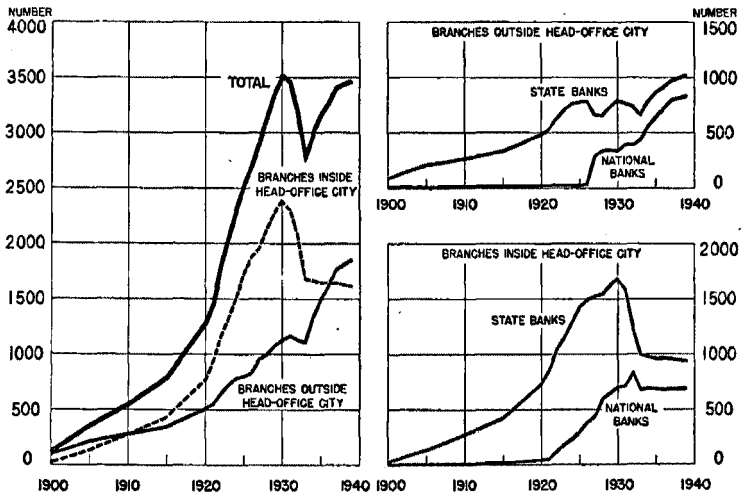
In the years 1929–1933 the aggregate number of banks operating branches declined appreciably for the first time since 1900. The bulk of this decline was accounted for by State banks, which had shown small declines in 1925 and in 1927. Events culminating in the banking holiday of 1933 seriously affected the banking business, causing widespread failures among various types of banks. After 1933 the upward trend in the number of banks operating branches was renewed. Since 1937 the rate of increase has been only slight. Both State and national banks have participated in this growth. Although the increase in the number of branches operated by national banks has exceeded the increase of State bank branches during the period since 1933, the increase in the number of banks operating branches has been much greater for State banks than for national banks. This is due in large measure to the establishment of limited power branches, or agencies, by State banks, mostly in Iowa, Wisconsin, North Carolina, and a very few other States.

The location of branches in relation to the head office of the operating bank has received much consideration in the formulation and administration of State laws relating to banking. All branches fall into two general classes; that is, branches located within the corporate limits of the city or town in which the head office of the operating bank is located (head-office city) and branches located in other places (outside the head-office city).

As shown in the chart on page 120, head-office city branches of State and national banks combined steadily increased in number from 1900 until about the end of 1930, but since that time have decreased in the aggregate. This decrease was most noticeable in the case of State institutions, particularly in 1932 and 1933. At the end of 1939 there were 1,623 head-office city branches. Over 1,100 of these were operated by banks which had no outside head-office city branches, including over 380 branches of New York City banks.

The aggregate number of outside head-office city branches has steadily increased, except during 1932 and 1933. National banks did not participate to any appreciable extent in this growth until 1927. Since then the increase in the number of outside head-office city branches has been greater for national banks than for State banks, although State banks still operate the majority of such branches. In 1937 the number of outside head-office city branches exceeded for the first time since 1910 the number of head-office city branches.

BRANCHES INSIDE AND OUTSIDE HEAD-OFFICE CITY[a]



[a] For data, see Table 12, p. 428.

This situation still prevailed at the end of 1939, when there were 1,868 outside head-office city branches. As shown in the accompanying chart, this change was due in part to a great decline in head-office city branches during the depression and a notable increase in outside head-office city branches after 1933. It will be remembered that the Banking Act of 1933 permitted national and State member banks to establish or acquire outside head-office city branches in States where nonmember banks were permitted by State laws to do so.

As shown by the chart on page 118, the number of branches has

usually fluctuated with the number of banks operating branches, although not in the same proportions. However, the number of banks operating branches, both national and State, began to decline in 1929 and continued to do so into 1933, while the aggregate number of branches continued to increase until 1931. The number of branches of State banks decreased in 1931 while the number of branches of national banks did not decrease until 1933. Except for the years 1931–1933, branch banking in the aggregate has increased. The ratio of branches to total banking offices has, with one or two exceptions, continued to increase steadily during the last two decades. Although the conversion of unit banks into branches accounts for over 37 per cent of all branches in existence at the end of 1939, and for more than 46 per cent of all outside head-office city branches, the increase in branch banking has had no clearly defined relationship to the numerical increase or decrease of unit banks.

Present Extent and Distribution of Branch Banking. At the end of 1939 there were 934 banks that operated branches, about 6.5 per cent of all commercial banks in the United States. They had deposits aggregating 30.8 billion dollars or about 54.1 per cent of all commercial bank deposits. With their 3,491 branches, they accounted for 24.7 per cent of the 17,911 commercial banking offices in the United States.

These banks operate branches in forty States and the District of Columbia. As shown by the upper map on page 123, the number of branch banking offices is much greater in certain States along the Eastern Seaboard, around the Great Lakes, and in the Pacific Coast States than in many other States of the Union. California and New York together account for about 43 per cent of all branches. In Iowa, Wisconsin, and North Carolina "offices," "stations," or "agencies" predominate. These States restrict such offices to communities having no banks and in certain respects limit the type of transactions they may conduct.

By reference to the lower map on page 123 it may be noted that branches constitute a larger percentage of all banking offices in the Pacific Coast and several Eastern States than in most of the Central and Rocky Mountain States. Branches constitute more than half of all of the banking offices in three States and the District

of Columbia, and between one-fourth and one-half in eleven other States. There are nineteen States in which branches account for less than 10 per cent of all banking offices, and eight of these States have no branches at all. Although there are but very few branches in some States, they constitute a high percentage of all banking offices in those States. This, of course, is due to the small number of banks in those States, such as Arizona, Nevada, and Idaho.

The relative importance of branches is greatest in States where the laws are least restrictive. Some important restrictions relate to the extent of the area in which branches may be operated, some to minimum capital (especially the Federal laws affecting national and State member banks), some to the existence of other banking facilities, and some to population. California, New York, Connecticut, and Virginia furnish interesting illustrations.

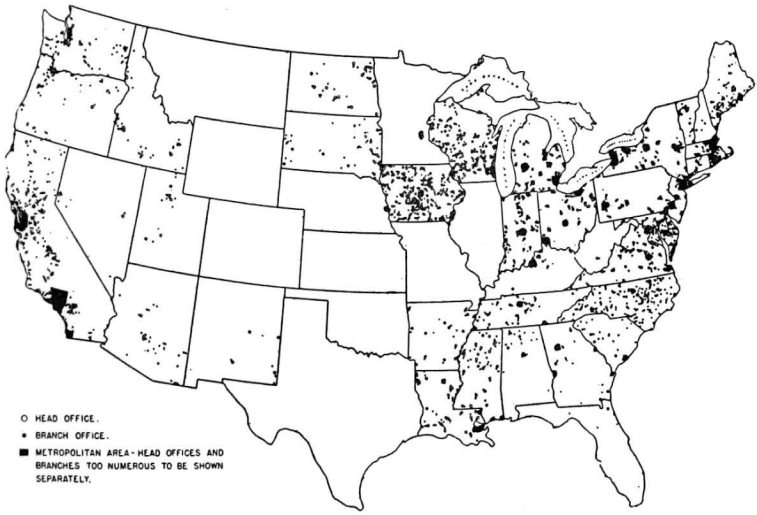
Banks operating branches, like other commercial banks, are of several different kinds. When grouped within the major classes of banks, together with their branches and deposits, they show the following distribution:

	Banks Operating Branches	Branches		Deposits (In millions of dollars)
		In Head-Office City	Outside Head-Office City	
National	195	681	837	14,924
State member	165	771	231	13,869
Insured nonmember	549	165	762	1,845
Noninsured	25	6	38	175
Total	934	1,623	1,868	30,813

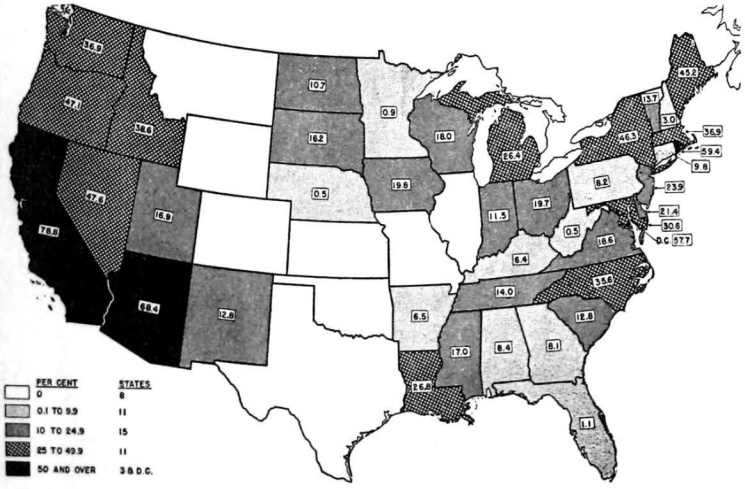
Over 20 per cent of all banks with branches are national banks and they operate about 44 per cent of all branches. State member banks account for only 18 per cent of the banks with branches and 29 per cent of the branches, a large proportion of the latter being located in head-office cities. Insured nonmember banks comprise nearly 60 per cent of all banks with branches but operate only 26 per cent of all branches. The average insured nonmember bank operates fewer branches than the average State member bank, but over 80 per cent of these branches are outside the head-office city. Noninsured banks comprise less than 3 per cent of all banks with branches and operate a little over one per cent of all branches.

GEOGRAPHIC DISTRIBUTION OF BRANCH BANKING, DECEMBER 31, 1939[a]

1. Number of Head Offices and Branches



2. Branches as Percentages of All Banking Offices



[a] For data, see Table 13, p. 429.

Almost half of the deposits in banks maintaining branches are held by national banks, and most of the remainder by State member banks. Insured nonmember banks have less than 6 per cent of the aggregate deposits of all branch operating banks while noninsured banks account for only a fraction of one per cent.

The distribution of banks according to the number of branches each operates shows the number of branches operated and the deposits held to be as follows:

	Banks Operating Branches	Number of Branches	Deposits (In millions of dollars)
1 branch	557	557	3,600
2 branches	152	304	5,473
3–10 branches	173	804	6,267
11–20 branches	31	433	3,783
21–50 branches	13	401	5,432
51–100 branches	6	382	4,198
Over 100 branches	2	610	2,060
Total	934	3,491	30,813

Of all banks with branches, about 76 per cent operate only one or two branches each. These banks and their branches differ but little from unit or single-office banks. They do not constitute branch banking systems in the usual sense and can not properly be taken as evidence of a greater development of such systems than has actually occurred. Banks with one or two branches have about 25 per cent of the branches and almost 30 per cent of the deposits included in all branch banking statistics. Most of these banks are small, only twenty-three having deposits of more than 50 million dollars each. The other extreme of branch banking is represented by the eight banks which operate more than fifty branches each and have slightly more than 20 per cent of the total deposits of all banks with branches. The intermediate groups include 217 banks that account for about 47 per cent of the branches and 50 per cent of the deposits.

Both in terms of amount of deposits held and size of community served, a large majority of banks with branches are small.[2] Only about 28 per cent have deposits in excess of 10 million dollars each

[2] For details, see Table 14, p. 430.

and 36 per cent have their head offices in cities of 50,000 or more inhabitants. As would be expected, these larger banks account for over 88 per cent of all head-office city branches. Outside head-office city branches are a little more evenly distributed between large and small banks, but about 56 per cent of them are operated by 261 banks each of which has more than 10 million dollars in deposits. Over 87 per cent of all outside head-office city branches are situated in communities with populations of less than 50,000 and over 76 per cent in communities with populations of less than 10,000; in many cases these branches constitute the only banking facilities available.

From the foregoing very brief description, it is apparent that banks with branches differ among themselves as do unit or single-office banks. Any attempt at full description would involve many details and complexities with respect to both the legal and administrative phases.

CHAIN BANKING

Chain banking is a type of multiple office banking through which the operations or policies of a number of independently incorporated banks are controlled by one or more individuals. This control may be accomplished through stock ownership, common directors, or in any other manner permitted by law. Chain banking differs from branch banking in two important respects; namely, legal form and type of control. Each bank in a chain is a separate legal entity and has its own stockholders and directors. Branches, on the other hand, are merely offices of the institution to which they belong.

Chain and branch banking are not mutually exclusive. Of the 934 banks described in the preceding section, thirty are in chains and operate seventy-five branches. Since only a small proportion of the banks and deposits of the country are included in chain banking, its importance is largely structural.

Legal Status. The manner in which ownership or control is exercised in chain banking has made it less susceptible to regulations and restrictions than branch or group banking.

State Laws. Only one State (Mississippi) definitely prohibits chain banking. The laws of five other States contain provisions that may

be regarded as regulating or restricting it, or at least certain promotional schemes, in varying degrees, but they do not appear definitely to prohibit it.[3] The other forty-two States (and the District of Columbia) have no laws pertaining directly to it. Except in a limited number of cases, chain banking is much less subject to State regulation than branch banking.

Federal Laws. The only Federal statute which might be regarded as restricting or affecting chain banking as such is the Clayton Antitrust Act. It affects chain banking only to the extent that the banks involved might be regarded as linked together through interlocking directors, officers, or employees and then only if one of the banks is a member of the Federal Reserve System. Many insured and noninsured banks, which are not affected, are larger and more important than many member banks which are affected by the act. An amendment contained in the Banking Act of 1935 removed any restrictions with respect to interlocking directorates of banks not located in the same, adjacent, or contiguous cities or towns. The act is not applicable in cases where a majority of the stock of the banks in question is owned by the same shareholders.

Development of Chain Banking. Information concerning the development of chain banking is fragmentary. In the absence of important regulatory measures, there appeared to be no official necessity for collecting statistics. It is apparent, however, that the early development of chain banking was mostly in agricultural regions. About 1884, the first reported chain originated in North Dakota and other systems later sprang up in the Northwest and in Oklahoma, Texas, Arkansas, and Tennessee. Some of the earliest banking services in several Pacific Coast and Mountain States were rendered by chain banks. In California particularly there was extensive development until about 1920, when branch banking became more prominent. The usual method of control over a chain in these States was for one individual or small group to acquire a majority, or at least a substantial portion, of the stock of newly organized banks.

The chain having the largest number of banks on record originated

[3] Arkansas, Kansas, Kentucky, Pennsylvania, and West Virginia.

in Georgia in the 1890's and continued until 1926. At its peak this system is said to have included about 200 banks, most of which were small. A majority of these banks were located within the State, but a number were in Florida and a few as far north as New York and New Jersey. The control was partly through stock ownership but mostly through special service contracts between the chain organizer and the several banks.

Although banks belonging to chains have been located largely in agricultural areas, some urban chains have been established in States where branch banking was prohibited. Some of the outstanding cases of urban chain banking occurred in Chicago and one large chain, effected through interlocking directorates and stock ownership, was reported in New York City. These chains are no longer in existence, and there was no extensive development of this type of banking in other large cities.

From time to time, particularly during the 1920's, banks in chains were reported to have been discontinued or converted into group or branch banking systems. During the past decade there has been a marked decrease in the number of chain systems and the number of banks belonging to chains.

Present Extent and Distribution of Chain Banking. In many cases it is difficult to determine whether a given bank is in a chain system, but on the basis of information carefully considered by the Federal Reserve Banks and their branches there were ninety-six chain systems in the United States as of December 31, 1939, with deposits totalling 883 million dollars.

Most chain systems operate within a small area and at only a few places within the area. As many as seventy-eight of the ninety-six systems now in existence do not extend beyond the boundaries of one State. Twelve have banks in two States and only six operate in three or four States. The twelve chains that operate in two States have but one bank each in the second State, and in five of these chains the bank in the second State is near the State line and close to one or more of the other banks in the chain. A large portion of the chains (eighty-three of ninety-six) have banks in no more than five towns, twelve more in from six to twelve towns, and only one in as many as thirty-five towns.

Generally speaking, chain systems are built around a key bank that is considerably larger than the other banks in the chain. In fifty-five of the ninety-six systems the principal bank has more deposits than all of the other banks.

The greatest concentration of chain banking is in a few Middle Western States, particularly where branch banking is prohibited or restricted. Chain banks were never numerous in States where the laws were favorable to branch banking and in other States were often converted into branches after the relaxation of legal deterrents to branch banking. As may be noted from the maps on page 129, there are no chain banking offices in nineteen States or the District of Columbia, and only a scattering in the States outside the region mentioned above.

When compared with the banking system as a whole, banking offices operating within chains are of relatively minor importance. As may be seen from the lower map, they account for 10 per cent or more of all banking offices in only five States (Nevada, Idaho, North Dakota, Minnesota, and Florida), Nevada leading with 24 per cent. As in the case of branch banking, numerical and relative importance are not necessarily synonymous. In Nevada, for instance, five chain banking offices comprise 24 per cent of all banking offices.

Forty per cent of all chain banks, with over 66 per cent of the deposits of chain banks, are national banks, and 46 per cent of the banks and almost 22 per cent of their deposits are in the insured nonmember bank classification. State member and noninsured banks are of negligible importance to chain banking.[4]

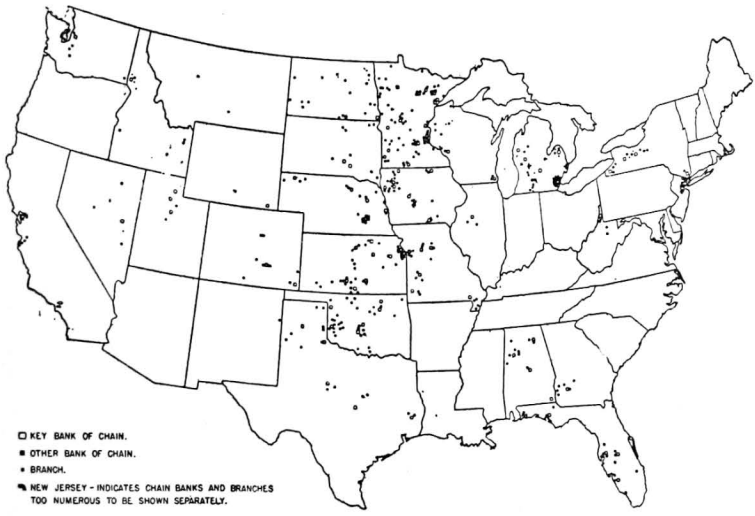
Both in terms of amount of deposits held and size of community served, the average chain bank is very small. This is shown by the fact that 66 per cent of all chain banks have deposits of one million dollars or less, and only 4 per cent have more than 10 million dollars each. Likewise, over 67 per cent of all chain banks operate in communities having fewer than 5,000 inhabitants. Even in the West North Central States, where there is the greatest concentration of chain banking, average deposits are small.

It would seem that, whatever the angle of approach, chain bank-

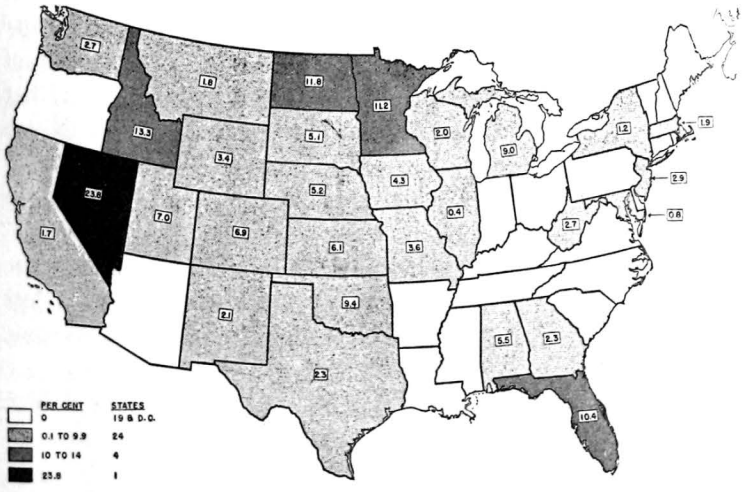
[4] For data, See Table 16, p. 432.

GEOGRAPHIC DISTRIBUTION OF CHAIN BANKING, DECEMBER 31, 1939[a]

1. Number of Chain Banking Offices



2. Chain Banking Offices as Percentages of All Banking Offices



[a] For data, see Table 15, p. 431.

ing was more important in the past than it is now. Part of its field of operation has been taken over by branch banking and part has been incorporated within group banking.

GROUP BANKING

Prior to the late 1920's no distinction was made between chain and group banking. The two terms are still often used interchangeably. In some cases at present it is difficult to determine definitely that a bank is a group bank or a chain bank. It was the perceptible increase in the controlling ownership of banks by corporations that led to differentiation between these two types of multiple office banking. Corporate as contrasted with personal control is accepted as the chief point of difference.

Group banking is regarded as that form of multiple office banking in which independently incorporated banks are controlled directly or indirectly by a corporation, business trust, association, or similar organization. The term "holding company" is often applied to the controlling company. In some cases the key bank in a group is the holding company, either directly or through trustees or a separate nonbanking corporation set up for the purpose. In other cases a nonbanking corporation or association is the holding company and controls the key bank as well as the smaller banks in the group.[5] Stock ownership is the usual but not necessarily the only form of control. Included in some of the group systems are banks that operate for all practical purposes as parts of the group, although only associated with it through minority stock ownership or common directors with other organizations in the group. Branches are found within group systems as within chains.

Legal Status. The fact that control of group banking is in the hands of organizations rather than individuals makes it subject to some regulations and restrictions that have not been made applicable to chain banking.

State Laws. By far the majority of the States have no laws which prohibit, restrict, or regulate group banking through holding com-

[5] This statement is concerned only with holding companies that control banks. No account is taken of companies that confine their control to nonbanking corporations.

panies that are not banks. However, laws pertaining to the holding of bank stocks by various classes of banks are in force in most of the States and impose varying degrees of restrictions.

Mississippi is the only State that prohibits group banking in specific language, and eleven other States have laws apparently designed to restrict or discourage it.[6] This is done by limiting the proportion of the stock in any one bank that may be held by a company, placing restrictions on the business transactions between the company and the banks in which it holds stock, providing for examination and supervision of the group, or in some other way. The banking laws of thirty-six States have no specific provisions relating to holding companies other than banks.

State laws pertaining to ownership by banks of the stock of other banks are far from uniform. The purchase of 50 per cent or more of the stock of any other bank is illegal for commercial banks in thirty-three States and the District of Columbia, for trust companies in twenty-five States and the District, and for savings banks in thirty-three States and the District. This does not necessarily mean that bank stocks can not be acquired in settlement of outstanding debts. Most, if not all, of the States permit such transactions but usually require that stocks so obtained be disposed of within limited periods. A few States place no specific restriction upon the acquisition of bank stocks by any class of banks.

Federal Laws. Provisions for the examination and supervision of group banking, as such, were enacted in the Banking Act of 1933. They apply only to holding companies which control banks that are members of the Federal Reserve System. Such holding companies, which may be either banking or nonbanking organizations, are termed "holding company affiliates" and, as defined in the law, may include not only corporations but business trusts, associations, and similar organizations.

For several years prior to 1924, the Federal Reserve Board had recognized the trend toward multiple office banking. As a result, in cases where the facts and circumstances seemed to warrant, the Board had required State banks, before admission to membership

[6] Arkansas, Indiana, Kansas, Kentucky, Minnesota, New Jersey, Oregon, Pennsylvania, Washington, West Virginia, and Wisconsin.

in the Federal Reserve System, to accept a condition of membership designed to prevent such banks from acquiring, either directly or through affiliated corporations or otherwise, more than 20 per cent of the capital stock of any other bank. This condition was incorporated in Regulation H as a general condition of membership in 1924 and remained in effect until 1928, when it was revised to prevent such banks from acquiring any interest in any other bank or trust company through the purchase of stock. This condition was made unnecessary by provisions of the Banking Act of 1933 which prohibited member banks from purchasing corporate stocks.

The Board had no means other than conditions of membership through which to control the acquisition of bank stocks by corporations. Early in January 1926, in a letter to Chairman McFadden of the House Committee on Banking and Currency, the Board suggested an amendment to existing banking laws which would require that detailed information regarding the condition and operation of institutions affiliated with member banks be furnished to the Board by means of simultaneous examination reports or such other means as might be deemed satisfactory by the Federal Reserve Board. This suggestion was not incorporated in the legislation which resulted, the McFadden Act of 1927, although the act contained provisions liberalizing branch banking to a certain extent. The rapid rise of group banking after 1926 resulted in several Congressional investigations and finally the incorporation in the Banking Act of 1933 of provisions for the regulation of group banking which affected the control of banks belonging to the Federal Reserve System. These provisions require holding company affiliates to obtain permits before voting the stock of member banks within their control.[7]

In order to obtain a voting permit, a holding company affiliate must make application to the Board of Governors of the Federal Reserve System. In acting on the application, the Board is required

[7] In the Banking Act of 1935, there were excepted from these provisions all corporations whose stock is owned by the Federal Government and also all organizations determined by the Board of Governors of the Federal Reserve System not to be engaged, directly or indirectly, in the business of holding the stock of, or managing or controlling, banking organizations.

to consider the financial condition of the applicant, the general character of its management, and the probable effect of the granting of the voting permit upon the affairs of the member bank. In order to obtain a permit, the applicant must execute a standard form of application that contains a number of conditions and agreements designed to supplement the provisions of the statutes in several important respects. It must possess or acquire under certain conditions specified reserves of marketable assets bearing a specified ratio to all the bank stocks controlled. It must agree to examination of itself and of each of its controlled banks and other organizations and to the publication of statements of condition of such banks, if required. It must also agree to terminate connections with any securities company and to declare dividends only out of actual net earnings. In addition, it must agree to standard conditions prescribed by the Board and to such special conditions as are deemed necessary. The purpose of all conditions is that the holding company and its subsidiary banks and other organizations shall maintain a sound financial condition and proper operating principles, including those involving inter-company transactions and relationships.

The most effective regulatory provisions in the statutes with respect to bank holding companies are applicable only to such holding companies as control member banks and voluntarily elect to file applications for voting permits and accept them under the conditions and regulations prescribed.

There are, however, certain provisions of law that affect holding company affiliates that do not apply for or obtain voting permits. The Banking Act of 1933 provides for submission and publication of reports of affiliates of member banks, sets up specific limits and collateral requirements for member bank loans to affiliates, and subjects the affiliates to examination. If a holding company happens to be a subsidiary of a member bank, or is otherwise an "affiliate" of a member bank, it is subject to these requirements.[8] Moreover,

[8] The Banking Act of 1933 distinguishes between "holding company affiliate" and "affiliate." By definition, the former is a holding company that has a controlling interest in a member bank and the latter includes a holding company in which a member bank, or the controlling stockholders thereof, have a controlling interest. This is a somewhat simplified distinction but it is sufficient for the purposes of this paper.

if not technically an "affiliate" but within the definition "holding company affiliate," it is subject to all the requirements except examination.

There is one other way in which Federal law indirectly affects group banking. Section 5136 of the Revised Statutes prohibits banks that are members of the Federal Reserve System from purchasing stock of corporations, including banks. The existence of this provision of Federal law, however, has not prevented member banks from legally controlling holding companies. They can do so through acquiring stock in such companies in the settlement of outstanding debts, or in other ways, such as retaining stock held before the prohibitory regulations became applicable. Without violating this provision of the law, moreover, a few member banks dominate holding companies through control over their trustees or management.

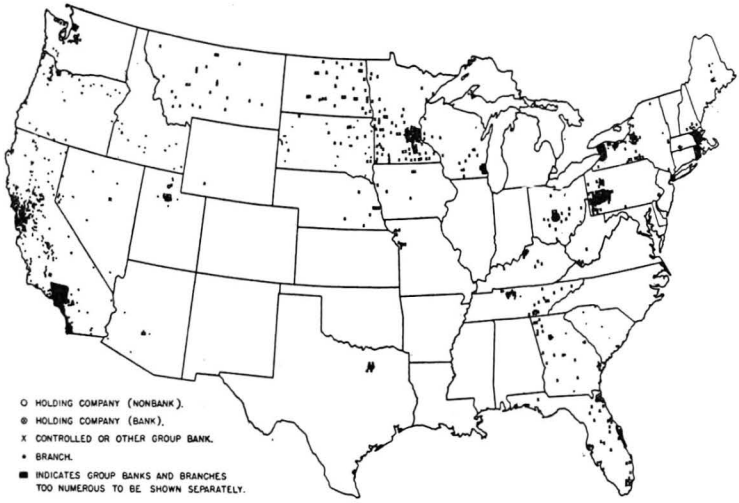
Development of Group Banking. As in the case of chain banking, little is known about the early development of group banking. The ownership of a bank by a nonbanking corporation for the purpose of facilitating financial transactions or protecting the deposits of employees and customers is no new phenomenon, having been known to exist as early as 1892. This type of control bore a structural resemblance to group banking; but, since it did not represent an effort to develop a group of banks under common management, it lacked an essential element of the present-day bank holding company.

A more direct line of descent is from chain banking, itself of obscure origin. There is record of one instance before 1900 where the individual organizers of a chain banking system transferred their holdings to a corporation organized for the purpose of acquiring and holding bank stocks. This was the forerunner of several similar cases prior to 1920. The extensive development of group banking did not occur until 1927, however, and by far the majority of the group banking systems operating today came into existence during the years 1927–1930.

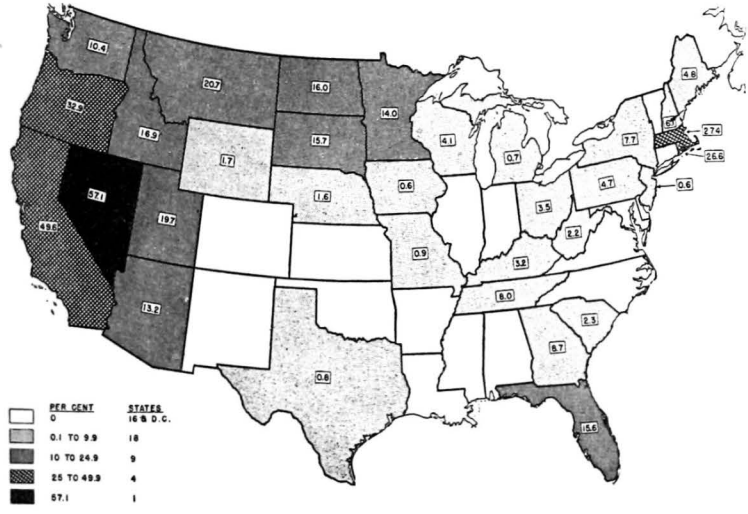
The first organized data relating to group banking, although rough, indicate that at the end of 1931 there were ninety-seven group banking systems in existence. There were included in these

GEOGRAPHIC DISTRIBUTION OF GROUP BANKING, DECEMBER 31, 1939[a]

1. Number of Group Banking Offices



2. Group Banking Offices as Percentages of All Banking Offices



[a] For data, see Table 18, pp. 433–34.

systems 978 banks having 1,219 branches and total loans and investments of over 8.7 billion dollars. Comparison of these figures with corresponding data for 1939 indicates that there has been a marked decline in group banking since 1931. The conversion of banks within groups into branches has accounted for a considerable part of the decrease, but mergers, voluntary and involuntary liquidation, and sale of the controlling interest in banks have also contributed to the decline.

Present Extent and Distribution of Group Banking. On December 31, 1939, there were forty-one group banking systems in the United States. They included 427 banks (sixty being banks having 869 branches) and nearly 5.4 billion dollars in loans and investments. The twenty leading groups had all been in existence since 1931 and included 346 banks, 831 branches, and aggregate loans and investments of over 4.7 billion dollars.

In about 85 per cent of the banks the holding companies own a majority of the common stock. Because of the existence of preferred stock in many of the banks, however, actual voting control of such a large percentage is not owned by the holding company. Furthermore, the banks comprising the other 15 per cent included twenty-six key banks which alone held well over half of all the deposits and total loans and investments within group banking systems.[9]

The geographic distribution of group banks and their branches is shown on page 135, together with their ratio to total banking offices in each State. By comparing the accompanying maps with those for branch and chain banking previously shown, two general conditions may be noted: (1) group and chain banking both exist in States where there is no branch banking; (2) group banking is much more prevalent than chain banking in States where branch banking has considerable development. In regions like the Pacific States, however, where branch banking is well developed, group banking has many more branches than banks.

The relative proportion of banking offices within groups is greatest in the Far Western States and in Massachusetts and Rhode Island. In all of these States, however, a very large portion of these banking offices are branches of the group banks.

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[9] For data, see Table 17, p. 433.

The different group banking systems are of various sizes. Twenty of the forty-one groups have less than six banks each, while one has eighty-five banks and another seventy-five. Most of the groups operate in only one State, although eight have banks in from two to seven States.[10] The principal operating offices of the forty-one groups are located in eighteen different States while their banks are located in thirty-one States.

As in the case of the other two types of multiple office banking, various classes of banks are found within group systems. The following table shows the number of banks and amount of deposits within each major bank classification that are accounted for by groups:

	Banks	Deposits (In millions of dollars)
National	248	5,495
State member	44	1,348
Insured nonmember	121	267
Noninsured	14	63
Total	427	7,173

It may be noted that national and State member banks account for over 68 per cent of all group banks and 95 per cent of their deposits. Insured nonmember banks comprise over 28 per cent of all group banks, but they hold only a very small proportion of the deposits. Noninsured banks are unimportant in terms of both number and deposits.

When classified by amount of deposits or size of community served, group banks on the average are larger and are situated in larger communities than chain banks. Only 32 per cent of the group banks, as against 66 per cent of the chain banks, have deposits of one million dollars or less. Only 24 per cent of the group banks, as compared with 53 per cent of the chain banks, are located in towns having less than 2,500 inhabitants, although many of their branches are located in small communities. The corresponding percentages for cities of 100,000 or more inhabitants are 21 and 7, respectively.[11]

On the whole, although there is no great difference between the

[10] For data, see Table 19, pp. 434–35.
[11] For data, see Tables 16 and 19, pp. 432 and 434–35.

number of systems and banks included within chain and group banking, respectively, group banking is the more important because it includes larger banks and more deposits than chain banking. Also, it includes a great many more branches and hence a larger proportion of all banking offices.

SUMMARY

The banking system of the United States, although primarily composed of single-office banks, includes three types of multiple office banking. Branch banking, the earliest type to appear, accounts for more banking offices and deposits than either of the two other types. Except as a special type of banking structure, chain banking is of but little importance, since it has not developed with, and in many instances has been replaced by, branch or group banking. Group banking, the corporate equivalent of chain banking, occupies an intermediate position. It accounts for an appreciable number of all multiple banking offices and for no small amount of their deposits, even though many banks within group banking systems have been converted into branches.

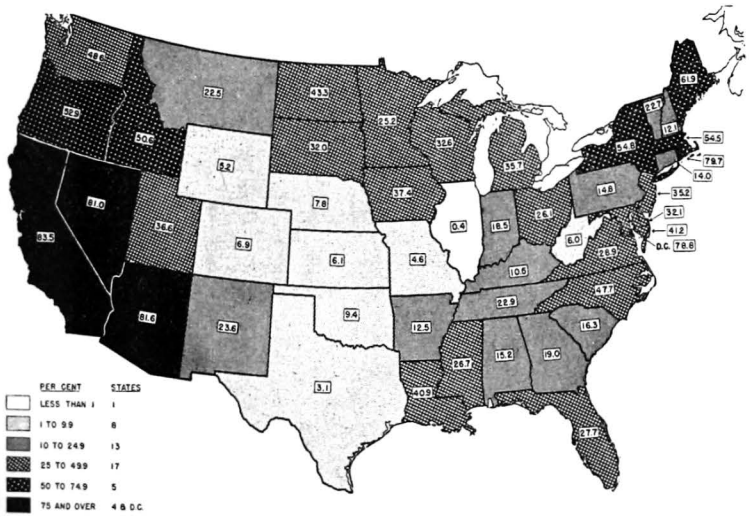
Branch, chain, and group banking combined account for less than 12 per cent of the commercial banks in the United States and, including branches, for about 29 per cent of the banking offices. The latter percentage is based upon very wide State-to-State variations, as shown by the accompanying map. From 50 to 84 per cent of the banking offices in nine States and the District of Columbia are in multiple office systems, from 25 to 50 per cent in seventeen States, and less than 25 per cent in twenty-two States.

The proportion of deposits held in multiple office systems also varies from State to State. It ranges up to one-third in sixteen States, and exceeds two-thirds in thirteen States. For the nation as a whole it amounts to over 59 per cent. If banks having only one or two branches were omitted, the proportion would be reduced to 43 per cent; or, if all multiple office systems operating in only one city were omitted, the proportion would be only about 19 per cent.

The present situation is for the most part the result of events during the past four decades. The gradual moderation of State and

Federal restrictions on branch banking has been conducive to considerable growth, while the depression of the 1930's gave rise to a number of branches in areas where banking services had been curtailed by failures. Chain and group banking, although subject to very few legal restrictions, are now considerably less important than they were a decade ago, several systems having been converted completely into branch systems. Branch banking, the most prev-

MULTIPLE BANKING OFFICES IN EACH STATE AS PERCENTAGES OF ALL BANKING OFFICES, DECEMBER 31, 1939[a]



[a] This map is based upon the data for branch, chain, and group banking given separately in Tables 13, 15, and 18, pp. 429–34. Duplications arising from the inclusion of branch systems within chain or group systems have been eliminated, however.

alent type of multiple office banking, is continuing to grow, but since 1937 at a decreasing rate.

Branch banking and chain or group banking are not mutually exclusive. There are a few relatively small banks operating branches in chain systems. Several important group banking systems still in existence have converted some of their banks into branches of other banks in the group. This situation naturally raises the question why these chain and group systems have not been converted entirely into branch systems. An important factor, especially in the smaller

CREDIT AND SAVINGS INSTITUTIONS OTHER THAN BANKS

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David M. Kennedy

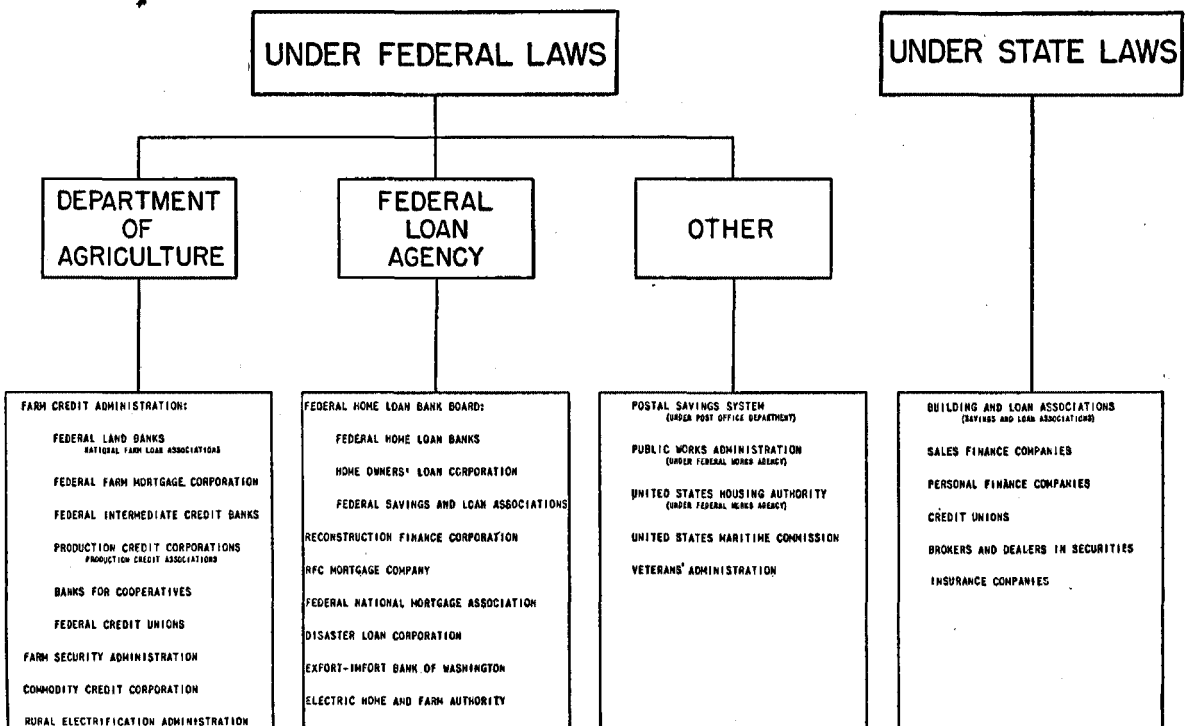
Division of Bank Operations

CREDIT AND SAVINGS INSTITUTIONS OTHER THAN BANKS

Banking functions—the receipt of deposits and the making of loans and investments—are performed by many institutions outside the banking system. Some of these institutions compete for the same type of loans and investments made by banks, some extend credit on terms and security that could not be accepted by banks, some accept deposits or provide savings facilities broadly equivalent to the savings facilities of banks, and some render services to banks as well as to the public. While the problems of banking legislation, bank supervision, and monetary policy that are of immediate concern lie within the field of money and banking, these other institutions that are not banks and yet bear directly upon the business of banks and affect their supervision must be taken into account as a part of the banking picture. Because of the large numbers and classes of institutions outside the banking system performing one or more of the traditional banking functions and the various conditions under which they operate, it will not be practicable in the space allotted to discuss their operations in detail. The purpose here will be to enumerate the principal institutions concerned, describe them briefly in order to differentiate them from banks, and at the same time show how they affect banking and bank supervision.

The credit and savings institutions to be considered in this paper are not chartered as banks under State or Federal law and are not subject to the supervision of State or Federal banking authorities. They operate under general incorporation laws of the several States, as unincorporated or private firms, or as part of Federal agencies that have instituted credit or savings services—generally as part of broader programs. They are listed in the accompanying chart under two headings, those operating under Federal law and those operat-

CREDIT AND SAVINGS INSTITUTIONS OTHER THAN BANKS



ing under State law. The activities of all of the former are carried on within some unit of the Federal Government, most of them being under the jurisdiction of the Department of Agriculture or the Federal Loan Agency. The latter are more or less familiar institutions operated by individuals or firms under the general laws of the several States.

INSTITUTIONS AND AGENCIES UNDER FEDERAL LAWS

The organizations performing banking functions under Federal laws other than banking laws are numerous. Many of them operate over the entire country. Their operations bulk large in dollar volume and touch nearly every phase of banking. With few important exceptions, most of the Government sponsored institutions in this field were created to render emergency service in the face of the severe economic depression of the 1930's. The exceptions are the Postal Savings System, the Federal Land Banks, and the Federal Intermediate Credit Banks, which were in existence many years before. Some of the agencies remain "temporary," their life being extended from time to time by Congressional action, but many others have been given more or less permanent status. Because this development of Government credit agencies performing banking functions is a comparatively recent one, the place of many of the institutions in respect to banking and credit and the ultimate effect of their operations upon commercial banking are not yet clearly determined.

Credit Agencies under the Supervision of the Department of Agriculture. The Department of Agriculture has general supervision of the Farm Credit Administration, the Farm Security Administration, the Commodity Credit Corporation, and the Rural Electrification Administration. All of these Government units extend credit in one form or another.

Farm Credit Administration. The Farm Credit Administration has under its supervision a nation-wide system of farm mortgage and agricultural credit units, in part permanent and in part of an emergency nature. The first of the farm credit agencies, the Federal Land Banks, were created in 1917. These institutions were to furnish long-term agricultural credit at lower rates and more reasonable

terms than had previously prevailed. In 1923, the Federal Intermediate Credit Banks were created to provide a reservoir of intermediate and short-term credit for agricultural purposes, including the production and marketing of agricultural products. In 1933 the farm loan system was reorganized and expanded into the Farm Credit Administration. The Federal Land Banks and Federal Intermediate Credit Banks were granted additional powers and in January 1934 the Federal Farm Mortgage Corporation was organized. A system of production credit corporations and cooperative banks also was established. In July 1939, under the President's reorganization plan, the Farm Credit Administration was placed under the general supervision of the Secretary of Agriculture. The following is a list of the agencies included under the Farm Credit Administration and the number in existence at the end of 1939:[1]

Federal Land Banks	12
Federal Farm Mortgage Corporation	1
Federal Intermediate Credit Banks	12
Production Credit Corporations	12
District Banks for Cooperatives	12
Central Bank for Cooperatives (Washington, D. C.)	1
National farm loan associations	3,722
Production credit associations	528
Federal credit unions	3,197

For the purpose of making agricultural credit available to farmers through agencies supervised by the Farm Credit Administration, the country is divided into twelve farm credit districts. There is a Federal Land Bank, a Federal Intermediate Credit Bank, a Production Credit Corporation, and a Bank for Cooperatives in each district. In each district there are also national farm loan associations and production credit associations, all chartered by the Farm Credit Administration.

[1] Regional agricultural credit corporations and Joint Stock Land Banks are not included because they are in liquidation. The Farm Credit Administration also handles the emergency crop, feed, and drought loans for which Congress has made direct appropriations. These loans are made through eleven regional offices, eight of which are located in cities where other district units of the Farm Credit Administration are located.

Farmers in each farm credit district have access to farm mortgage loans, ordinarily through their local national farm loan associations. These associations handle both Federal Land Bank loans and so-called Land Bank Commissioner or Federal Farm Mortgage Corporation loans. Farmers obtain loans for crop and livestock production from their local production credit associations, which are supervised by the Production Credit Corporation of the district. Farmers' marketing and purchasing cooperatives may borrow money from the District Bank for Cooperatives. A Central Bank for Cooperatives extending credit to large regional or national cooperatives is located in Washington.

The Farm Credit Administration also charters and supervises Federal credit unions. Credit unions are institutions owned cooperatively by a group of persons bound together by common business or fraternal interests. They are organized to make small and moderate size loans to their members out of funds derived from the sale of shares to members. Shares of credit unions are analogous in some respects to savings deposits in banks. They are as a practical matter redeemable at the credit union with little or no notice.

Farm Security Administration. The Farm Security Administration, which is distinct from the Farm Credit Administration but also under the Department of Agriculture, was created in 1937 as the successor to the Resettlement Administration. It makes long-term loans to farm tenants, farm laborers, and share-croppers for the purpose of enabling them to become farm owners; rehabilitation loans to destitute and low-income farm families for the purchase of farm supplies and equipment, for refinancing indebtedness, and for family subsistence; and loans to complete the suburban and rural resettlement projects begun by the Resettlement Administration.

Commodity Credit Corporation. The Commodity Credit Corporation, also under the Department of Agriculture, was organized in 1933 primarily to make loans to producers of agricultural commodities for the purpose of financing the carrying and orderly marketing of these commodities. Loans by the Corporation are usually made pursuant to arrangements whereby banks and other lending agencies finance the producers in the first instance. The Corporation agrees with the lending agencies to purchase the loans from them if

tendered on or before a fixed date. Where local credit facilities are unavailable for any reason, the Corporation makes direct loans.

An important feature of the loans made by the Commodity Credit Corporation is that the Corporation places a fixed collateral value on the commodities pledged for the loans and waives recourse against the borrowers in case later sale of the collateral nets less than the amount of the loans. This collateral value is usually higher than the current market price and is fixed with a view to enabling producers to avoid selling excessive crops on the market at depressed price levels. Since the loan is made without recourse, in effect the producer sells the commodity to the Commodity Credit Corporation but retains an option to "repurchase" upon payment of the note, carrying charges, and accrued interest. Most of the loans made by the Commodity Credit Corporation have been on cotton, corn, and wheat.

Rural Electrification Administration. The Rural Electrification Administration, created in 1936 and under the Department of Agriculture since July 1939, is authorized to make loans to facilitate the introduction of electrical services to rural areas.[2] For this purpose it may lend up to the entire cost of building rural electrification distribution systems, including generator and transmission equipment. The Administration is also authorized to finance the wiring of dwellings and other buildings in rural areas, and the acquisition and installation of electrical and plumbing equipment.

Credit Agencies under the Supervision of the Federal Loan Agency. The Federal Loan Agency was created in 1939 and given general supervision over the following Government credit agencies: the Federal Home Loan Bank Board, the Reconstruction Finance Corporation, the RFC Mortage Company, the Federal National Mortgage Association, the Disaster Loan Corporation, the Export-Import Bank of Washington, and the Electric Home and Farm Authority.

Federal Home Loan Bank Board. By act of July 22, 1932, Congress created the Federal Home Loan Bank Board for the pur-

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[2] The present organization superseded the emergency agency by the same name created by executive order in 1935.

pose of establishing and supervising a nation-wide home loan system. By virtue of this and subsequent acts the Board now has under its supervision the twelve Federal Home Loan Banks, over 1,400 Federal savings and loan associations, the Federal Savings and Loan Insurance Corporation, and the Home Owners' Loan Corporation (in liquidation). Membership in the Federal Home Loan Bank System, which is required for Federal savings and loan associations, is open on a voluntary basis to State chartered building and loan associations, homestead associations, cooperative banks, savings banks, and insurance companies that are engaged in making long-term home mortgage loans. About 2,500 of these institutions, principally State chartered building and loan associations, have joined the System in order to borrow from the Federal Home Loan Banks; some 800 also have their accounts insured by the Federal Savings and Loan Insurance Corporation.

The Federal Home Loan Banks, twelve in number and each serving a territory fixed by the Board, were the first of these home loan institutions to function. Their purpose is to furnish a permanent reservoir of credit for local thrift and home financing institutions such as savings and loan associations and savings banks. They do not lend to individuals. In the field of home mortgage credit the twelve Federal Home Loan Banks perform somewhat the same function that the Federal Reserve Banks perform as a credit reserve for commercial banks and that the Federal Land Banks and Federal Intermediate Credit Banks perform in the field of farm finance. The Home Loan Banks make secured and unsecured loans and advances to credit institutions that join the Home Loan Bank System, and receive deposits from such institutions. Such loans are secured by assignment of home mortgage loans held by the borrower and by a lien on the stock in the local Home Loan Bank subscribed to by the borrower when it became a member of the Federal Home Loan Bank System. Institutions that join the System are subject to examination by the Federal Home Loan Bank Board. The Home Loan Banks may lend to nonmember institutions upon the security of home mortgages insured by the Federal Housing Administration.

Federal savings and loan associations, established under authority of legislation enacted in 1933, are similar to State chartered building

and loan associations, except that they are chartered and supervised by the Federal Home Loan Bank Board instead of by the respective States. Provision was made for the conversion of State chartered institutions into Federal savings and loan associations, and, of the more than 1,400 Federal associations in operation at the end of 1939, over half were converted associations. Federal savings and loan associations make urban home mortgage loans. Their funds are supplied primarily through the sale of repurchasable shares to the public and by borrowings from the Federal Home Loan Banks. Share accounts of Federal savings and loan associations have many of the characteristics of savings deposits of banks. Payments on the share accounts are usually credited and withdrawals debited in pass books similar to savings pass books. While notice of intended withdrawal of share accounts is provided for by the by-laws of the associations, in normal times shares are repurchased at the offices of the associations on demand. Because of the similarity between share accounts of savings and loan associations and savings deposits of banks, they are frequently confused in the public mind.

The Federal Savings and Loan Insurance Corporation was organized pursuant to the National Housing Act of 1934 for the purpose of insuring share accounts of Federal savings and loan associations and voluntary members of the Federal Home Loan Bank System. Share accounts in an insured institution are insured up to $5,000 for each investor. The Federal Savings and Loan Insurance Corporation does not make loans except under limited circumstances such as to prevent the default of an insured institution, or to restore an insured institution in default to normal operations. It serves savings and loan associations in somewhat the same capacity as the Federal Deposit Insurance Corporation serves banks.

The Home Owners' Loan Corporation was established in 1933 to make loans to distressed urban home owners and to refinance home mortgages held by banks and other lending institutions. Its primary purpose was to protect small home owners from foreclosures resulting from the depression, or from losing their property because of inability to pay taxes or assessments. It ceased its lending operations in June 1936 and is now in liquidation.

Reconstruction Finance Corporation.[3] The Reconstruction Finance Corporation, which now comes under the Federal Loan Agency, was organized in 1932, along the lines of the War Finance Corporation.[4] It was given broad powers to purchase preferred stock, capital notes, and debentures of banks, and to make loans to banks and other financial institutions as well as to individuals and corporations on any security deemed adequate by the Corporation. It has also provided the loan funds for some Government agencies, such as the Rural Electrification Administration, the RFC Mortgage Company, the Export-Import Bank of Washington, and the Disaster Loan Corporation. The Corporation functions through a principal office in Washington and loan agencies in nearly all of the thirty-six Federal Reserve Bank and branch cities.

The Reconstruction Finance Corporation has certain contractual supervisory or regulatory powers over the banks in which it acquires part ownership through the purchase of capital notes, debentures, and preferred stock. These powers are superimposed upon the powers exercised by the Comptroller of the Currency, the Federal Reserve authorities, the Federal Deposit Insurance Corporation, and the State banking departments.

RFC Mortgage Company and Federal National Mortgage Association. The RFC Mortgage Company was organized in 1935 by the Reconstruction Finance Corporation to make loans to individuals or corporations on urban income producing properties, loans to dis-

[3] This discussion reflects the situation as of the end of 1939. During 1940, as part of the national defense program, Congress authorized several changes and enlargements in the operations of some of the Government corporations and credit agencies. Five new corporations (the Rubber Reserve Company, Metals Reserve Company, Defense Plant Corporation, Defense Supplies Corporation, and Defense Homes Corporation) were organized by the Reconstruction Finance Corporation to acquire strategic and critical materials and to aid in the production of defense materials. The principal developments during 1940 in the operations of United States Government corporations and credit agencies are summarized in an article in the April 1941 *Federal Reserve Bulletin*, pp. 297-307.

[4] The War Finance Corporation was established during the first World War and given broad powers to make loans to banks, bankers, trust companies, building and loan associations, and directly to industries. Its operations were temporarily suspended after the war but they were revived during the agricultural depression which began in the early 1920's. The Corporation then made a large volume of loans to member banks of the Federal Reserve System, to nonmember banks, and to livestock companies throughout the country. It was placed in liquidation on Jan. 1, 1925.

tressed holders of first mortgage real-estate bonds, and mortgage loans on low-cost housing projects approved by the Federal Housing Administration. The Corporation is also authorized to purchase and sell mortgages insured under Titles I and II of the National Housing Act.

The Federal National Mortgage Association, organized in 1938 by the Reconstruction Finance Corporation under the provisions of the National Housing Act, buys and sells insured mortgages and makes large-scale housing loans.

Other Institutions under the Federal Loan Agency.[5] The Disaster Loan Corporation was established in 1937 to make available special loan assistance to persons and corporations in regions suffering from catastrophies such as earthquakes, hurricanes, and floods. The Export-Import Bank of Washington was established in 1934 with authority to make loans to exporters and importers to facilitate trade with the possessions and foreign countries. The Electric Home and Farm Authority was established in 1935 and contracts with retail appliance dealers to purchase from them time-payment notes executed by consumers. The present organization superseded the Electric Home and Farm Authority, Inc., organized in January 1934 under an executive order.

Other Institutions that Operate under Federal Laws. Although the Department of Agriculture and the Federal Loan Agency have general supervision of the largest number of credit institutions created and regulated by the Federal Government, other departments and agencies are charged with supervision of some credit and savings services. These include the Post Office Department, the Public Works Administration, the United States Housing Authority, the Maritime Commission, and the Veterans' Administration.

Postal Savings System. The Postal Savings System, which operates within the Post Office Department, is the oldest of the Federal institutions performing banking functions. It was established in 1910 to provide savings facilities, administered by the Federal

[5] The Federal Loan Agency also has supervision over the Federal Housing Administration. The Administration does not make loans but is important in the lending field because it insures mortgage loans.

Government, in small as well as large localities. The Postal Savings System grew very slowly until 1930, when its depositors numbered less than half a million and its deposits amounted to only about 175 million dollars. From 1930 to 1933 its depositors increased in number to 2.3 millions and its deposits to a total of almost 1.2 billion dollars. Since 1933 there has been little growth in the Postal Savings System. At the end of 1939 it had about 2.8 million depositors and deposits aggregating about 1.3 billion dollars.

The Postal Savings System does not make loans. Five per cent of its funds are kept in the United States Treasury as a reserve against deposits, the remainder being deposited in banks or invested in United States securities. Banks are required to pay 2.5 per cent on such deposits except where the maximum rate on time deposits established by supervisory authorities is less. In recent years an increasing proportion of Postal Savings funds has been invested in Government securities. In 1931 about 86 per cent was redeposited in banks and about 8 per cent invested in Government securities, whereas in 1939 only about 4 per cent was redeposited in banks and about 90 per cent invested in Government securities.

Public Works Administration. This organization was established in 1933 as part of the Federal program to create employment through construction activity. In addition to making loans and outright grants to States and other public bodies for financing public works projects, it was authorized to make loans to industry for such purposes as the development and improvement of railroads. The Administration operates as part of the Federal Works Agency. Its program at present is limited to projects under construction, most of which are substantially completed.

United States Housing Authority. The Housing Authority was organized in 1937 to make loans and grants to public housing agencies and to assist in the acquisition, development, and administration of low-rent or slum-clearance projects. It now functions within the Federal Works Agency and has taken over somewhat similar activities formerly handled by the Public Works Administration.

United States Maritime Commission. This Commission, which was established in 1936 when the former United States Shipping

Board Merchant Fleet Corporation was dissolved, is authorized to grant construction and operating differential subsidies and construction loans to American owned and operated merchant marine companies. It is an independent agency, having no administrative connection with any other Government department. It receives its appropriations direct from Congress.

Veterans' Administration. Through the Government Life Insurance Fund which it administers, the Veterans' Administration makes loans to war veterans on policies issued by that fund.

LOANS BY CREDIT AGENCIES OPERATING WITHIN GOVERNMENT UNITS

From the foregoing very brief description of the credit institutions operating within Government units it is apparent that their lending activities cover many classes and types of loans. The Federal Land Banks and the Federal Farm Mortgage Corporation operate in the farm mortgage field. Certain other agencies supervised by the Farm Credit Administration provide short and intermediate term credits to farmers and livestock men for practically all agricultural purposes. These agencies operate in every section of the country. Federal savings and loan associations make home mortgage loans, and the Home Owners' Loan Corporation (now liquidating) refinanced a large volume of home mortgage loans during 1933–1936. In recent years, particularly, such Government sponsored agencies as the Reconstruction Finance Corporation, the Public Works Administration, and the United States Housing Authority have been authorized to make loans to public bodies and to corporations.

The volume of loans outstanding on December 31, 1939, at each of the principal Federal lending institutions, is shown in the accompanying table (in millions of dollars):[6]

Department of Agriculture:	
Farm Credit Administration—	
Federal Land Banks	1,905
Federal Farm Mortgage Corporation	691

[6] No total is shown because of duplications resulting from the inclusion of Federal Intermediate Credit Banks and Federal Home Loan Banks. These institutions are banks of discount for other institutions in the list.

Federal Intermediate Credit Banks	200
Production credit associations	154
Central Bank for Cooperatives and district banks for cooperatives	76
Federal credit unions	37
Farm Security Administration	257
Commodity Credit Corporation	235
Rural Electrification Administration	183
Federal Loan Agency:	
Federal Home Loan Bank Board—	
Federal Home Loan Banks	181
Home Owners' Loan Corporation	2,038
Federal savings and loan associations	1,271
Reconstruction Finance Corporation (including preferred stock purchased but excluding inter-agency transactions)	1,562
RFC Mortgage Company	57
Federal National Mortgage Association	147
Disaster Loan Corporation	19
Export-Import Bank of Washington	40
Electric Home and Farm Authority	11
Federal Works Agency:	
Public Works Administration	72
United States Housing Authority	123
United States Maritime Commission	47
Veterans' Administration (June 30, 1939)	151

In addition to the loans listed above, the Joint Stock Land Banks had loans of 63 million dollars, the regional agricultural credit corporations loans of 8 millions, and the Agricultural Marketing Act Revolving Fund loans of 87 million dollars outstanding at the end of 1939. These institutions and loans are being liquidated under the Farm Credit Administration. Emergency crop, feed, and drought loans made by the Farm Credit Administration under appropriations by Congress amounted to 168 million dollars at the end of 1939.

When grouped according to the principal source of their loan funds, the credit and savings institutions operating within Federal departments appear as follows:[7]

[7] This classification is based on the principal source of funds for each of the Government credit agencies. Frequently the agencies have obtained substantial amounts from

Deposits or Share Accounts:
- Postal Savings System (deposits)
- Federal savings and loan associations[8]
  (repurchasable shares, usually sold to the public but in some cases to Federal Government agencies; may also borrow from Federal Home Loan Banks)
- Federal credit unions[8]
  (repurchasable shares sold to members; sometimes also borrow from other credit unions, banks, or others)

Bonds or Notes Issued to Private Investors (capital stock owned in whole or in part by Treasury or other Government agencies):
- Federal Land Banks
  (also stock owned by national farm loan associations; bonds issued to Federal Farm Mortgage Corporation; paid-in surplus from Treasury)
- Federal Farm Mortgage Corporation[9]
- Federal Intermediate Credit Banks
- Commodity Credit Corporation[9]
  (also payments from Treasury to restore capital impairment)
- Federal Home Loan Banks
  (also stock owned by member institutions)
- Home Owners' Loan Corporation (in liquidation)[9]
- Federal National Mortgage Association
  (also notes issued to Reconstruction Finance Corporation)
- United States Housing Authority[9]
- Electric Home and Farm Authority
- Reconstruction Finance Corporation[9]

Stocks, Bonds, or Notes Issued to Other Government Agencies:
- Production credit associations[8]
  (Class "A" stock owned by Production Credit Corporations; discounts from Federal Intermediate Credit Banks)
- Banks for Cooperatives
  (stock owned by Farm Credit Administration; discounts from Federal Intermediate Credit Banks)

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other sources, as indicated parenthetically. In addition, a few of the agencies have borrowed from the United States Treasury when they were in need of funds to carry them over temporary situations. The Reconstruction Finance Corporation formerly financed most of its operations with borrowings from the Treasury which have now been liquidated. Some of the agencies have built up substantial surpluses out of earnings from operations.

[8] Institutions formed by private individuals, chartered and supervised by Federal agencies.

[9] Securities guaranteed by the United States Government.

Rural Electrification Administration
(to Reconstruction Finance Corporation; also direct appropriations)
RFC Mortgage Company
(to Reconstruction Finance Corporation)
Export-Import Bank of Washington
(to Reconstruction Finance Corporation)
Disaster Loan Corporation
(to Reconstruction Finance Corporation)

Direct Appropriations by the Government of the United States:
Farm Credit Administration emergency crop, feed, and drought loans
Farm Security Administration
Public Works Administration
(also resale of obligations acquired)
United States Maritime Commission

It will be noted that the method of financing these institutions has taken a variety of forms. Some agencies, particularly those of a temporary or emergency character, have received direct appropriations from the Government. Others have received funds through the purchase of stock by the Treasury or other Government agencies; still others through the sale of notes, debentures, and bonds, with or without the guaranty of the Federal Government. A large volume of funds is obtained from banks, which are important purchasers of these securities. At the end of 1939 all insured banks held 3.8 billion dollars of the approximately 7.8 billions of outstanding obligations issued by Government corporations and agencies.

Production credit associations obtain most of their loan funds, and banks for cooperatives some of theirs, by discounting with Federal Intermediate Credit Banks, which sell their own debentures to the investing public. The Federal savings and loan associations obtain the major part of their funds through investment by the public in their share accounts, but they also borrow from the Federal Home Loan Banks and sell their shares to the Home Owners' Loan Corporation and to the Treasury. Federal credit unions also rely chiefly upon the sale of share accounts, but the total amount invested in them does not bulk large. The Postal Savings

System receives deposits from the public.[10] None of the institutions, however, accepts demand deposits as contrasted with savings deposits.

STATE CHARTERED INSTITUTIONS AND UNINCORPORATED FIRMS

The organizations under State charter or without charter, with functions similar to banking, include building and loan associations, sales finance companies, personal finance companies, credit unions, stock-exchange brokers, and insurance companies. There are many others, but those listed are the principal ones and a brief discussion of their operations will serve to illustrate their importance. Most of the State chartered and unincorporated firms have been in operation over a much longer period than the institutions under Federal sponsorship.

Building and Loan Associations. Building and loan associations originated as local institutions to provide facilities for financing the building and purchase of homes through the pooled resources of individuals. The first in the United States of which there is any record was established in an outlying section of Philadelphia in 1831. The great majority of building and loan associations are small local institutions. Prior to the Home Owners' Loan Act, approved on June 13, 1933, they were all State institutions. Now there are Federal savings and loan association, chartered by the Federal Home Loan Bank Board, as well as State chartered building and loan associations. At the end of 1939, there were 6,300 State and 1,400 Federal associations. About 2,500 of the State associations had joined the Federal Home Loan Bank System and consequently were entitled to borrow from the Federal Home Loan Banks. Of this number about 800 State chartered associations had their share accounts up to $5,000 insured by the Federal Savings and Loan Insurance Corporation. Mortgage loans of all State chartered building and loan associations at the end of 1939 amounted to 2.8 billion dollars and private repurchasable share accounts aggregated

[10] United States Savings Bonds now being sold by the Treasury partake of the nature of savings certificates redeemable without notice.

3.2 billions.[11] Share accounts of building and loan associations, like those of Federal savings and loan associations, are similar in many respects to savings deposits of banks.

Sales Finance Companies. The business of sales finance companies consists principally of the purchase of conditional sales contracts from dealers in automobiles, household appliances, and other consumption goods. The finance companies obtain their loan funds partly from invested capital and accumulated surplus, but principally by the sale of debentures, collateral trust notes, and short-term open-market paper, and by direct borrowings from banks. While figures are not available for all sales finance companies, the three large national companies had total loans of 980 million dollars outstanding at the end of 1939.

Most sales finance companies operate under general incorporation laws. One of the three largest of such companies, however, is incorporated under the banking laws of New York. It is supervised by the State banking authorities, although not included in the bank statistics of that State. Its California offices, however, are supervised and counted as banks under State law.

Personal Finance Companies. Personal finance companies operate in the small-loan field under the so-called uniform small-loan law adopted by most of the States. Their loans are made up to a maximum of $300 at rates ranging from 2 per cent to 3.5 per cent a month on unpaid balances. Personal finance companies procure their funds by sale of stock and by borrowing from banks. Over 4,000 personal finance companies or offices operate in the States that have adopted the uniform small-loan law or similar legislation. Their loans outstanding at the end of 1939 totalled about 430 million dollars.

Credit Unions. Credit unions are institutions owned cooperatively by a group of persons having a common business, fraternal, or other interest. They are organized to make small loans to their members out of funds derived from the sale of shares to members

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[11] This includes 360 million dollars of deposits and investment securities. In a few States building and loan associations reported a relatively small amount of deposits and investment certificates as of the end of 1939.

and from a relatively small amount of borrowings. Loans for small amounts are made solely on the credit of the member. Loans for larger amounts are required to be made on co-maker notes or to be secured in some form. The customary rate of interest charged by credit unions is one per cent a month on the outstanding balance. Most credit unions operate under State charter, but since 1934 many Federal credit unions have been chartered by the Farm Credit Administration. At the end of 1939, State chartered credit unions numbered about 4,700 and Federal chartered credit unions about 3,200. The amount of loans outstanding at the end of 1939 at all credit unions was about 150 million dollars.

Brokers and Dealers in Securities. Brokers and dealers in securities make loans for the purpose of enabling their customers to finance purchases of securities on margin. They in turn borrow the greater part of what they lend from banks, pledging as collateral the securities purchased for their margin customers. Members of the New York Stock Exchange had loans to customers outstanding at the end of 1939 in the amount of 900 million dollars. It is estimated that these firms furnish about 90 per cent of the credit extended to customers by all brokers and dealers in securities in the United States. Brokers hold substantial amounts of their customers' funds. These funds held by brokers, which are generally referred to as "free credit balances," amounted to about 265 million dollars at the end of 1939.

The Board of Governors of the Federal Reserve System, under the Securities Exchange Act of 1934, regulates margin requirements on credit extended by brokers, dealers, and banks to finance the purchase or carrying of securities.

Insurance Companies. The primary function of insurance companies, of course, is to provide life, fire, indemnity, and other types of insurance. They are included in this study because life insurance companies, particularly, make a large volume of real-estate loans. They also make policy loans, hold a substantial volume of securities, and provide savings facilities for the public. The reserves of the 49 legal reserve life insurance companies that hold about 92 per cent of the assets of all such companies in the United States amounted to about 24 billion dollars at the end of 1939. This amount represents accumulated savings to the public. It has been set aside out

of premiums and other income, usually pursuant to requirements of law, and constitutes the amount that policy holders would be lent upon request or paid upon surrender of the policies. At the end of 1939 these 49 companies had over 5 billion dollars outstanding in mortgage loans and 3 billions in policy loans. They owned securities valued at 15.5 billion dollars.

INFLUENCE ON BANKING OF INSTITUTIONS WITH SIMILAR FUNCTIONS

It is apparent from the foregoing discussion that the operations of credit and savings institutions outside the banking system are important both from the standpoint of numbers and types of institutions engaged in one or more banking functions and from the standpoint of volume of business handled. While the institutions, considered one by one, may be distinguished from banks, there is considerable similarity between some of their functions and the functions of banks. It is true that most of these institutions make many types of loans and on terms that banks could not make. But the cumulative effect of their operations does have an important influence on banking and bank supervision. The extent and potency of this influence are difficult to determine, because the development and expansion of most of these institutions is comparatively recent. Although it is beyond the scope of this paper to appraise or even describe all the ways in which banking practices are affected by the operation of these institutions, a few examples are given in the following paragraphs. No attempt will be made to show individual situations where a given institution or a particular type of loan is in direct competition with banks.

Interest Rates Charged on Loans and Paid on Deposits. Many factors must be taken into account in a consideration of interest rates. An important one, but one that as yet can not be accurately measured, is the influence of Government lending agencies whose rates are frequently fixed by law or regulation. For example, Congress and the Farm Credit Administration prescribe by law or regulation the rates of interest which farm credit institutions may charge on farm mortgage and agricultural loans, and Congress and the Federal Home Loan Bank Board prescribe the rate on the

home mortgage loans made by the Home Owners' Loan Corporation. The Federal Housing Administration prescribes the rates that may be charged on insured mortgage loans and the Commodity Credit Corporation sets the rates on its loans. The Reconstruction Finance Corporation, which has a wide range of lending powers and a large volume of loans outstanding, fixes the rates charged on its loans. The rates fixed by Congress or these institutions may vary from the prevailing rates in different communities for similar types of loans. It should be borne in mind that the rates charged by these institutions are frequently fixed with the view of making credit available in certain situations at a low rate in order to ease or stimulate conditions in a given field. As a long-run proposition it is possible that this practice would affect rates not only on identical types of bank loans but on related types as well.

Related to the regulation of interest charged on loans is the regulation of interest paid on deposits. The Board of Governors of the Federal Reserve System, under the provisions of the Federal Reserve Act, has fixed the maximum rates of interest payable on time and savings deposits by member banks. Like action has been taken by the Federal Deposit Insurance Corporation with respect to insured banks that are not members of the Federal Reserve System. In prescribing these rates, the Board and the Corporation could not ignore the rates paid by other institutions in the field, for the regulations of any banking authority are necessarily affected by the action of institutions not subject to the regulations. Thus the rates paid by the Postal Savings System, the United States Treasury (through the sale of United States Savings Bonds), Federal savings and loan associations, building and loan associations, and credit unions have a direct bearing upon regulatory action as to the rates of interest payable by banks that are members of the Federal Reserve System and that have Federal deposit insurance.

Liquidity of Bank Assets. The Federal Reserve Banks serve as credit reservoirs for member banks, and under certain circumstances for nonmember banks. Some of the institutions included in this discussion also serve to maintain the liquidity of certain bank assets. For example, the Commodity Credit Corporation will take over loans from banks when such loans are made with the approval

of and commitment from the Corporation. The RFC Mortgage Company and the Federal National Mortgage Association are authorized to buy mortgages insured under the National Housing Act. Federal Intermediate Credit Banks may discount agricultural paper for banks. The Reconstruction Finance Corporation has purchased preferred stock and capital notes and debentures of banks and has made loans to banks and commitments to take over loans from banks.

Loans to refinance bank loans were made by the Home Owners' Loan Corporation (now in liquidation) in its large-scale refinancing operations during the depression. The banks received bonds and cash in exchange for the mortgage loans. A substantial volume of the loans made by Federal Land Banks and the Federal Farm Mortgage Corporation was to refinance loans previously held by banks.

In addition to loans and commitments made to banks themselves, loans made by Government and other lending agencies to others than banks have an indirect effect on the liquidity of bank assets. Part at least of the funds received may be used to repay bank loans.

Changing Character of Banking. At the same time that institutions other than banks have entered the traditional field of banking, banks have extended their operations outside that field; with the result that distinctions and border-lines have become obscured. The liabilities of many institutions that are not banks closely resemble the deposit liabilities of institutions that are banks. The classes of assets now held by banks include many that in the past were held primarily by institutions other than banks. Investment securities, such as Government obligations, direct and guaranteed, and corporate obligations, have to a considerable extent taken the place of commercial loans in bank portfolios. Mortgage loans, especially those of home owners, are held by banks to a greater extent than formerly. Personal and installment loans—formerly left almost entirely to sales or personal finance companies—are now made also by banks. These and other changes in the character of banking may be attributed in large part to the operations of other institutions—Government sponsored and private—operating in the same or closely related fields.

RELATIONSHIP OF FEDERAL RESERVE BANKS TO OTHER INSTITUTIONS

The Federal Reserve Banks, which are primarily concerned with the services and credit functions they perform for banks, also under certain circumstances perform services for and extend credit to the institutions discussed in this paper. The Federal Reserve Banks perform various fiscal agency and depositary services for some Government credit agencies. Among these are the Federal Farm Mortgage Corporation, the Federal Land Banks, the Federal Intermediate Credit Banks, and the Commodity Credit Corporation, all of which are under the supervision of the Department of Agriculture; the Reconstruction Finance Corporation, the Federal Home Loan Banks, and the Home Owners' Loan Corporation, all of which are under the Federal Loan Agency; and the United States Housing Authority and the Public Works Administration, which are under the supervision of the Federal Works Agency. For some of these organizations the Federal Reserve Banks issue, exchange, and redeem securities; pay coupons; and disburse payments. These services and other operations of the Federal Reserve Banks are described in another paper.

The Federal Reserve Banks may extend credit to Federal and State institutions outside the banking system under authority of certain provisions of law permitting credit to be extended to any individual, partnership, or corporation. For example, when authorized by the Board of Governors, the Federal Reserve Banks may make such advances for periods not exceeding ninety days on promissory notes secured by direct obligations of the United States. Also, when authorized by the Board of Governors in unusual and exigent circumstances, the Reserve Banks may discount for individuals, partnerships, or corporations, any paper eligible for discount by banks that are members of the Federal Reserve System. In the case of such discounts, however, the Reserve Banks are required to assure themselves that the applicants are unable to secure adequate credit accommodations from other banking institutions.

The Federal Reserve Banks may discount for any financing institution obligations having maturities not exceeding five years

and entered into for the purpose of providing working capital for established industrial or commercial businesses. The Reserve Banks may also make loans or advances direct to financing institutions on the security of such obligations, and may make commitments with regard to such loans or advances.

The Federal Reserve Banks may rediscount agricultural paper for the Federal Intermediate Credit Banks, provided such paper does not bear the endorsement of a nonmember State bank that is eligible for membership in the System. The Federal Reserve Banks may discount notes payable to Federal Intermediate Credit Banks covering loans or advances made by such banks if the notes have maturities at the time of discount of not more than nine months and are secured by paper eligible for rediscount by the Federal Reserve Banks.

The Federal Reserve Banks may purchase, in the open market, at the direction of or subject to regulations adopted by the Federal Open Market Committee, bonds, notes, or other obligations fully guaranteed by the United States Government as to principal and interest.

Mention should also be made of the fact that the obligations of Federal and State credit institutions other than banks may provide the security for credit extended to member banks of the Federal Reserve System by the Reserve Banks.

SUMMARY

There are many institutions under varying degrees of Federal and State sponsorship and authority that perform one or more banking functions. The activities of these institutions have expanded considerably in recent years, and many new ones have been established, mostly by the Federal Government. Some receive deposits, or what are broadly equivalent to savings deposits, and many make loans. Commercial banks, through the purchase of securities, have furnished part of the funds with which these loans were made. Since these institutions lie outside the general framework of the banking structure, they are subject either not at all or only in part to the legislation and supervision imposed upon the banking system. It is evident that the performance of banking functions by institu-

tions that are not banks and not amenable to banking laws and supervision introduces an additional element of complexity into a situation already complex from the point of view of banking alone. It presents a problem not only to banks but to the authorities charged with the supervision of banks and administration of banking laws. The operations of these institutions, therefore, should be taken into account in a study of banking problems proper.

COMMERCIAL BANK OPERATIONS

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COMMERCIAL BANK OPERATIONS

Commercial banks are part of the economic organization of the nation. They operate as business concerns and earn a living by rendering services to the public. By lending and investing money, they assist productive processes; by providing checking account services they facilitate and expedite the settlement of financial obligations. There are numerous other banking services, but most of them are related to the primary banking functions of making loans and investments and handling deposits. All these services and operations have to do with money, which may be viewed as the stock in trade of banks.

The money with which a commercial bank operates comes from one or more of three sources—invested capital, borrowing, and deposits.[1] The chief function of capital is to protect depositors from loss and it is not an important source of funds for day-to-day bank operations. Likewise borrowing, although sometimes important in the past, is now rarely a means of carrying on current operations. Hence deposits, which in themselves give rise to many banking services in connection with the transfer of funds, are indirectly the basis for the credit and investment operations through which banks serve commerce and industry.

COMMERCIAL BANKS AS DEPOSITARIES

The kind of deposits handled by a bank and the habits of depositors are determining factors in all bank operations. They influence a bank's lending and investment policies as well as its routine service operations. The kinds and special characteristics of deposits described below, although infrequently concentrated in

[1] This paper is confined to a discussion of the operations of individual banks and it is, therefore, appropriate to say that deposits are the source of bank funds. A subsequent paper, "Money System of United States," will show that the commercial banking system as a whole generates deposits.

a single bank, have an important bearing upon the operations of all the banks within the commercial banking system.

Kinds of Deposits. Deposits in commercial banks are maintained by individuals and business firms for a variety of purposes. They serve primarily either as working cash balances, always available for use in making payments, or as a form of investment for savings. Typically the depositor who wishes to make frequent use of his account carries a demand deposit while the one who desires to accumulate savings carries a time or savings deposit. In general, the former type of account is very much more active than the latter and requires a bank to do more work. There is considerable interchange in the uses to which the two types of accounts are put, however, and so no definite line can be drawn between their functions. Moreover, while banks reserve the right to require advance notice of withdrawals from savings accounts, in practice they seldom exercise the right and almost always honor requests for withdrawals immediately. Owing to regulatory requirements, however, time deposits other than savings accounts usually can not be paid on request.

Demand deposits have given rise to banking services over a long period. As stated in a subsequent paper, a large part of all money payments are now made by means of checks drawn on deposit accounts.[2] Nearly all large payments are so made. The use of checks in effecting payments developed for a variety of reasons. In the first place, checks are safer than cash because they are negotiable only by the payee. They are more convenient than legal tender currency because they are drawn in exact amounts, are not bulky, and do not require making change. They are a particularly convenient, inexpensive, and safe means of making payments at great distances; and they constitute a legal receipt of payment. These conveniences and safeguards have their origin in the services banks render in connection with demand deposits.

A bank has to employ tellers, bookkeepers, and clerks to record and handle all transactions passing through the deposit accounts entrusted to its care. Deposits and withdrawals of funds must be

[2] "Money System of United States."

entered on the individual deposit account affected, and checks deposited by customers must be collected. A check drawn on the same bank in which it is deposited or cashed is settled by a charge to the account of the drawee. Checks received by a bank drawn on other banks in the same community can be collected by messenger or by the institution known as the clearing house. Out-of-town checks can be and sometimes are collected directly by mailing them to the bank on which they are drawn. The more usual practice, however, is for these checks to be collected through correspondent banks located in the more important centers, or through the Federal Reserve Banks. Correspondent banks undertake this task in return for deposit balances left with them by the collecting banks.[3] More often than not, checks can be cleared without recourse to the use of cash, for the majority of payees prefer to take credit in their deposit accounts rather than to handle cash.

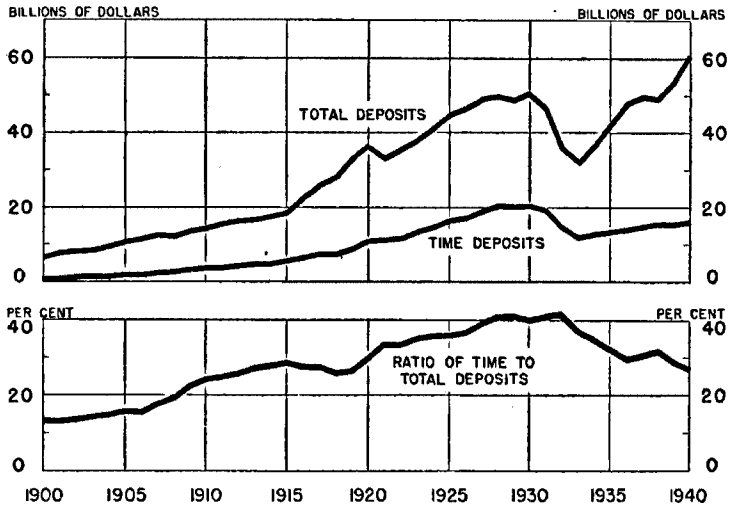
Time and savings deposits have become important sources of commercial bank services and funds within the past few decades. Although savings banks, insurance companies, and building and loan associations have long served as intermediaries between small savers and the investment market, it was not until the turn of the century that commercial banks increased their savings business considerably. They are now one of the two or three most important types of savings institutions and have developed services and practices especially adapted to their new function. The increased importance of time deposits in commercial banks is shown in the chart on page 172.

Time and savings deposits, being on the whole much less active than demand deposits, occasion less work. Since they are carried primarily as a liquid form of investment rather than as working cash balances, they tend to fluctuate less in amount than demand

[3] Further consideration of the correspondent banking relationship is given on pp. 174–76. Soon after the Federal Reserve System was organized, the Reserve Banks undertook to provide collection service not only for their members but for such nonmembers as wished to participate. Some of the problems involved in this change have been discussed in "The Par Collection System of the Federal Reserve Banks," *Federal Reserve Bulletin*, February 1940, pp. 89–96. It is sufficient to mention at this point that the Federal Reserve System has only partly displaced the correspondent system of check collection, and that at present a considerable proportion of the out-of-town collections are still effected through correspondent banks.

deposits and to be subject to fewer deposits and withdrawals.[4] They draw interest, however, and thus give rise to a cost item that banks do not incur in connection with demand accounts.[5] At present banks whose deposits are insured by the Federal Deposit Insurance Corporation are not permitted to pay more than 2.5 per cent on time and savings accounts, and the prevailing rates are below this legal maximum. In former periods, when the entire interest rate structure was at higher levels, 3 or 4 per cent or even higher rates were paid.

TIME AND TOTAL DEPOSITS OF COMMERCIAL BANKS[a]



[a] For data, see Table 20, p. 436.

It is feasible for banks to pay interest on time and savings balances but not on demand accounts because the former cost less to handle than the latter and because banks with large amounts of time de-

[4] Time and savings accounts are more stable than demand accounts in that there are relatively fewer deposits and withdrawals and less variation in aggregate balances from week to week and month to month. Over longer periods, however, it does not appear that time deposits are a great deal more stable than demand deposits. In a prolonged decline such as occurred in 1930–1933, time deposits decreased almost as much relatively as demand deposits.

[5] In former years, banks frequently paid interest on demand balances. Insured banks, however, which have most of the demand deposit business, are now prohibited from doing so.

posits generally can safely invest a larger proportion of their available funds and for longer terms than those with few such deposits.

Characteristics of Demand Deposit Accounts. In the previous section demand deposits were described as being subject to more frequent deposits and withdrawals than time or savings deposits, and to greater fluctuations in their balances. These same differences are found also within the general class of demand deposits. Some banks have a predominance of highly seasonal business accounts so that in some parts of the year deposits are high while in others they are low. Other banks primarily serve businesses that are strongly influenced by business prosperity or depression and have deposit balances that fluctuate accordingly. Still other banks depend on industries, such as the food business, that are less influenced by cyclical factors. Bank managers take such deposit movements into account when planning their lending and investing policies. A bank with many depositors who make sudden and unpredictable withdrawals from their demand accounts must keep larger cash reserves, for instance, than a bank with depositors who habitually carry fairly constant balances in their accounts.

While the *individuals* who carry checking accounts for personal convenience are the most numerous class of demand depositors, the aggregate dollar amount held by them is not a major part of all bank deposits, and these checking accounts do not greatly influence the investment programs of commercial banks. Deposits and withdrawals from such checking accounts are likely to be regular and roughly equal. Customers frequently have certain levels at which they prefer to maintain their checking accounts and banks often set up minimum balance requirements. Very large deposits for individuals of substantial wealth behave somewhat differently. Large amounts may be on deposit for considerable periods and furnish the bank a source of lending funds. In making its plans, however, the bank must allow for sizable and sudden withdrawals for investment or other use by the depositor.

The *business depositor* furnishes a very large proportion of the dollar volume of demand deposits handled by commercial banks. These business accounts frequently have special seasonal and cyclical characteristics. The deposits of automobile manufacturers

and sales agencies, of cement and brick producers, of clothing manufacturers, of department stores and mail-order houses, of canneries, and of wheat farmers and truck gardeners are likely to run low at some seasons and high at others. The commercial banker anticipates and prepares for these seasonal changes in deposits, adjusting his investment portfolio from time to time so as to provide the proper amount of liquidity.[6] The general level of business activity also affects business deposits. Current production and distribution processes are partly financed by funds borrowed from banks and deposited in demand accounts. In times of depression, when production and distribution are at a low ebb and business does not require much working capital, bank loans are likely to be paid off and deposits automatically reduced. Conversely, in times of prosperity, bank credit is needed to finance current activity and the proceeds are added to bank deposits. During a period in which industrial activity is increasing, funds may move out of financial centers and become diffused in deposits held by corporations in various places where plants, factories, and warehouses are located. In slack periods the funds tend to return to the financial centers. Extended periods of loss deplete these balances and periods of profits restore them. The timing of long-term financing and of plant expansion and improvement also influences business deposit balances.

Commercial banks themselves appear on the books of other commercial banks as depositors. This situation arises from the fact that long ago bankers recognized the need of keeping cash reserves available in proportion to their short-term liabilities (including their customers' demand deposits).[7] Experience disclosed that banks needed to keep only part of their reserves in their own tills in currency and that the remainder could be deposited in other banks where it was readily available.

The holding of bankers' deposits became a profitable business, particularly to banks in New York City and other financial centers.

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[6] Bankers can borrow to meet seasonal declines in deposits but they prefer to provide for them in some other way.

[7] Although at first maintained voluntarily in proportions deemed sufficient by individual banks, reserves are now required by law.

It furnished large amounts of funds for which banks competed by paying substantial rates of interest and offering a large variety of free services. Although the payment of interest on these and other demand deposits is no longer permitted by law, many of the free services are still performed. One of the more important of these is the collection of checks at par. Another is the buying and selling of securities for country correspondents and the furnishing of investment advice. City correspondent banks also are in a position to send business to their country correspondents.

Prior to the creation of the Federal Reserve Banks, city correspondent banks undertook to perform elementary central banking functions. In addition to assuming the responsibility of meeting all calls on the demand deposits of their country correspondents, they assumed, inferentially, some responsibility for making loans to these correspondents in time of need. With the concentration of reserve balances in financial centers, the liquidity of the banking system came to depend to a large extent on the ability of the city correspondents to meet these responsibilities. On a number of occasions they were unable to do so, and banks in other parts of the country were severely handicapped in obtaining necessary funds.

Under the Federal Reserve Act, only deposits in the Federal Reserve Banks can be counted as legal reserves for member banks. Nonmember banks are permitted by State law to carry their reserve balances with other commercial banks and they continue to do so. Member banks also continue to carry balances in correspondent banks even though they can not count them as legal reserves.

At the present time correspondent balances probably are not profitable to the banks holding them. The city correspondent can not use the balances to very good advantage because of the low rates prevailing in the money market and the scarcity of short-term liquid securities; the country correspondent can not receive interest on the balances and receives only certain free services, as outlined above. But custom is strong, and since many country banks are unable to put all of their funds to work, interbank deposits are now approaching all-time peaks.

Another type of depositor from whom commercial banks obtain funds is the *public agency*; that is, the town, city, State, or other

unit of government. Despite efforts to synchronize receipts and expenditures, deposits in public accounts increase substantially at certain times of the year (tax due-dates, for instance) and decline at other times when expenditures are heavy. In so far as an individual bank holds the deposits of taxpayers and of recipients of government checks, the activity of its public accounts merely results in a transfer of funds from one deposit to another within the bank. This sort of coincidence can not be counted upon, however, and banks customarily offset their public deposit accounts by an unusual degree of liquidity in their assets.

Foreign banks and business concerns, as well as *citizens of other countries*, often deposit money in the United States. The activity of their deposits is less predictable than that of domestic accounts, since it is directly influenced by a wider range of political, economic, and military developments. Consequently, banks are reluctant to invest funds from these accounts and are disposed to keep them more liquid than domestic accounts. New York City commercial banks carry most of these accounts.

HOW COMMERCIAL BANKS EMPLOY THEIR FUNDS

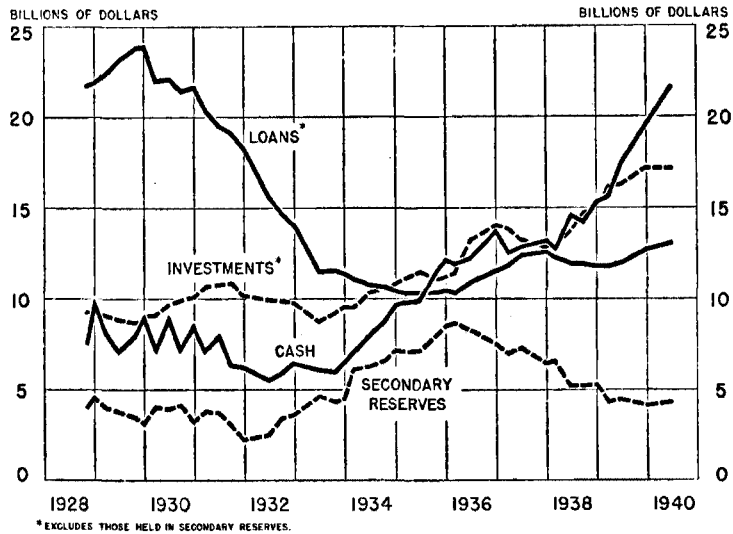
Banks get most of their income from lending or investing money. In putting money to work they constantly have to observe requirements of safety—safety in two different senses. Banking safety in the more commonly recognized sense means that money must be lent or invested only where there is reasonable assurance that it will be returned. It means safety against undue risks of default or delayed payment.

But banking safety must be considered in another sense. The preceding section dealing with bank deposits and their characteristics showed that the levels of deposits might be expected to vary considerably from one time to another. In order to be prepared for periods in which deposits are lost, a bank must have cash or access to cash. Loans and investments, safe in the sense that they will be repaid ultimately, can usually be used for borrowing to meet deposit losses so that a bank with secure earning assets is reasonably well protected. But banks do not like to borrow; they prefer to have cash, or assets that can be readily sold for cash.

If banks maintained adequate cash reserves to meet any possible requirement, they could employ no more than a small fraction of their funds. In practice, banks hold some loans and investments that can be converted into cash at almost any time without loss. Such assets are called secondary reserves.

Bank assets, therefore, may be divided into three broad classes: cash (which produces no income), secondary reserves (in which some income has been sacrificed for the sake of availability), and

ASSETS OF MEMBER BANKS[a]



[a] For data, see Table 21, pp. 436–37.

loans and investments acquired primarily for income purposes.[8] The distribution of the funds of member banks among these classes during the past decade is shown on the accompanying chart. The proportion that an individual bank must keep in each of these classes depends on its specific position. Banks that have large proportions of very active balances, such as correspondent accounts,

[8] This classification differs from the conventional division of bank assets into cash, loans, and investments. Investments more often conform to the character of secondary reserves than loans do. Both of these classifications omit banking quarters and equipment, which are usually only a small fraction of bank assets.

the deposits of foreign interests, and deposits of highly fluctuating businesses, need a high degree of liquidity. A large part of the funds need to be in cash form or in secondary reserves. Banks located in stable communities with a large proportion of time deposits can put much larger parts of their funds in income assets.

Cash. In this country, banks hold cash not only for reasons of prudence but because such "reserves" are required by law.[9] Only a small part of bank cash, however, is actual legal tender currency—till money. Most bank cash represents deposits with other banks. Member banks keep all of their required reserves, and more besides, as deposits at the Federal Reserve Banks. The levels of balances at the Reserve Banks are influenced by factors discussed in other papers.

The levels of correspondent balances, although influenced by the liquidity that banks think they should have, are also affected by other factors. It has already been pointed out that a large proportion of out-of-town checks are collected through correspondent banks. Since collection of such checks is a costly service, the city correspondent banks expect to be compensated for doing it by the maintenance of profitable deposit accounts. Therefore, some country banks maintain city correspondent balances, not wholly to provide liquidity, but in order to form the basis for securing the free service of collection.

Secondary Reserves. The assets traditionally known as "secondary reserves" have been bankers' acceptances, stock-exchange call loans, and short-term Treasury securities. In former periods call loans were favorite secondary reserve assets among banks. Now the market supplies of these loans and of most forms of secondary reserve except Treasury short-term securities are greatly reduced. Bank liquidity has nevertheless increased in recent years since cash reserves are currently so much in excess of legal requirements. Excess reserves have become a kind of substitute for the call loan.

Income Assets. Although the major responsibility for providing liquidity is presumed to rest on cash and secondary reserve assets,

[9] The present importance of legal reserves in another connection is discussed in other papers in this volume. See "Monetary Controls" and "Instruments of Federal Reserve Policy."

it is also considered desirable for income producing assets to hold some promise of ready convertibility into cash. The paramount consideration in connection with such assets, however, is how to get the most interest income with the least risk. Loans are the traditional employment for bank funds, but investments have become increasingly important in recent years.

Loans. The form of loan most favored by tradition is the short-term commercial loan; that is, a credit based on a productive or distributive process which, in its fruition, provides the funds with which to repay the loan. The commercial loan has many advantages. It is usually for short periods of time and the transaction it covers supplies security for the loan. The appraisal of credit risk in such a loan is comparatively easy.[10] Although highly regarded, the commercial loan has come to be a progressively smaller proportion of bank assets. For one thing, business enterprise has been centralized more in corporations that are able to get favorable financing from the long-term securities market. In addition, improvement in transportation and changes in inventory practices have reduced the requirements for short-term commercial credit. As a result, banks have had to seek employment for their funds elsewhere.

One of the most important non-commercial employments of bank funds has been lending on securities. Such securities, being marketable, in normal times furnish a convenient kind of collateral. Security loans have been at various times a substantial proportion of bank portfolios. This was particularly true during the late 1920's, when there was a great deal of speculative activity in the securities markets.

Real-estate loans have also employed a considerable fraction of bank funds. These loans, typically being for long periods, are not liquid and in some periods have been out of favor. During the recent depression, for example, the lack of liquidity in real-estate loans was very frequently believed to be the cause of banking difficulties.

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[10] In addition to being satisfactory outlets for the funds of individual banks, it has been claimed by those adhering to the so-called banking school that commercial loans have a general monetary or credit merit in that they occasion the creation of commercial bank credit only in response to increased business activity or production, thus guarding against price inflation.

In the past few years, however, there has been some rehabilitation of the real-estate finance market and such lending, insured by the Federal Housing Administration, has furnished an outlet for a substantial volume of commercial bank funds.

Banks have made loans to provide longer term working capital. In the past these loans were frequently in short maturity form but were kept outstanding for long periods by repeated renewals. This arrangement was not very satisfactory either for the bank or the borrower. More recently these loans have been contracted for longer periods, with provision that they be retired by periodic payments. These are the much discussed "term" loans.

The preference of banks for loans is wholly logical. Loans generally yield better returns than investments, and banks are uniquely fitted to judge their credit risk. For many years there has been a common but mistaken impression among certain groups that bankers grant loans grudgingly. This view ignores the fact that a good loan is the most profitable asset a bank can have. The reason bankers appear to hesitate about making loans is that they must avoid difficult collections as well as defaults. This requires a careful analysis of the credit risks presented by each loan application. Much of the success of a bank depends on how collectible its loan portfolio is. It may be, however, that in some cases banks have acquired the habit of insisting on certain well-established kinds of security that may not be as easily obtainable as in the past and may not always be necessary for safety.

Credit analysis, as practiced by banks, is a highly developed art. Its practitioners have devised elaborate statistical measures involving balance sheet and income statement ratios. Large banks have specially trained staffs for this sort of work. Small banks, particularly those in compact and more or less self-contained communities, are in a position to depend largely upon intimate knowledge of local conditions and borrowers.

The success of banks in judging credit risks is evidenced by the comparatively small rate of loss bank loans have produced. After allowance for recoveries, the losses on loans by operating member banks during the past decade and a half, including several years of severe depression, have been at the annual rate of only about

half a per cent of loans. In general, the risks involved in recessions of business activity have caused banks more difficulty than those associated with such credit factors as the ability and willingness of borrowers to repay their loans under ordinary circumstances.

As a result of the shrunken demand for credit, banks have had to become much more aggressive in seeking out loans than in former periods, and they have had to employ substantial proportions of their funds in the purchase of securities.

Investments. Many banks have entered into the large-scale purchasing of securities reluctantly. One reason is that they enjoy no such special advantages as they do in the making of local loans. Securities must be purchased competitively with other institutional and private investors. Most of the institutional investors, such as insurance companies and investment trusts, because they average large in size, can afford to have regular staffs of investment and business analysts. A small bank with a few employees can not afford such expensive programs of investment research and must look to correspondents and professional investment counselors for advice.

Another problem that banks must face in purchasing securities is the remote maturity of most issues. As a rule securities traded in the market do not mature for a considerable period of time, often for many decades. The market price of such long-term securities reflects changes in long-term interest rates. Thus in purchasing securities a bank assumes an interest risk in addition to the credit risk which characterizes commercial and other loans of shorter duration. A relatively short-term loan made just before a rise in interest rates represents a potential loss in interest for a short time; but the purchase of securities at such a time commits a bank to a small return for a long period or possibly to selling at a discount on the market.

If banks held their securities to maturity, the risk of rising interest rates would not be very important. The returns on securities purchased in high-price, low-yield periods and those purchased in low-price, high-yield periods would average out. But banks do not necessarily plan—and may not be able—to hold their securities to maturity. They definitely prefer loans and like to be able to substitute them for securities when occasion permits. Moreover,

even if it be remote, there is always the chance that banks will need to sell securities to maintain liquidity.

As a result, bankers are inclined to be sensitive to abrupt changes in market quotations even though they do not contemplate the immediate sale of securities. Since they do not usually sell securities in advance of need for the proceeds, there is always the chance that widespread demand for loans or withdrawal of deposits will bring about a mass selling of securities that will contribute to a decline in prices and thus aggravate losses. Bankers are aware of this possibility and many try to anticipate the general movement by selling in advance of other bankers in order to avoid loss. The liquidity and position of any one bank may be improved by this process, but the stability of the securities market and the condition of other banks may be adversely affected.

If there were ample market supplies of short-term securities, bankers could avoid the interest rate risk associated with long-term securities. A frequent but somewhat impractical recommendation is that banks should own only securities that will mature within five years. Aside from the fact that there are not enough of them to supply all banks, short-term securities now yield very low rates.

Many banks maintain "spaced" or "staggered" securities portfolios. This means that their security accounts consist of roughly equal portions of short, intermediate, and long maturity issues. Once such a program has been established most of the new securities purchased can be of long maturity. The passage of time brings the whole portfolio nearer to maturity, but at spaced intervals, and the securities reaching maturity from time to time provide cash for reinvestment or other bank uses as circumstances require.

Changes in security prices are of particular concern to banks because of their special capital position. In recent years banking capital has been small in proportion to total assets. As a result a moderate decline in the price of securities may represent a paper loss equal to a fairly large proportion of capital accounts. This is not a true "impairment" of capital, but conservative bankers frequently think of it as such. As a result, many banks with slender capital equities may be disinclined to purchase and hold the longer term securities that might jeopardize their book solvency.

OTHER SERVICES OF COMMERCIAL BANKS

Although deposit-lending-investing operations are their principal functions, commercial banks do many other things. Almost all of them have safe deposit space for rent. Many banks in large and middle-size cities act as corporate trustees, a service that is readily adaptable to banking because it makes additional use of existing investment and legal facilities. The trust business of some banks furnishes a substantial part of their income. Banks also buy and sell securities and foreign exchange for customers, act as travel agents, and deal in mortgage loans. In small communities they frequently sell insurance and "clerk" auction sales, picking up a few desirable loans in the process. Banks frequently are landlords. Some own banking quarters with excess space to rent. Banks that make real-estate mortgage loans sometimes have to take possession of properties which, unless they can be disposed of promptly, are usually rented.

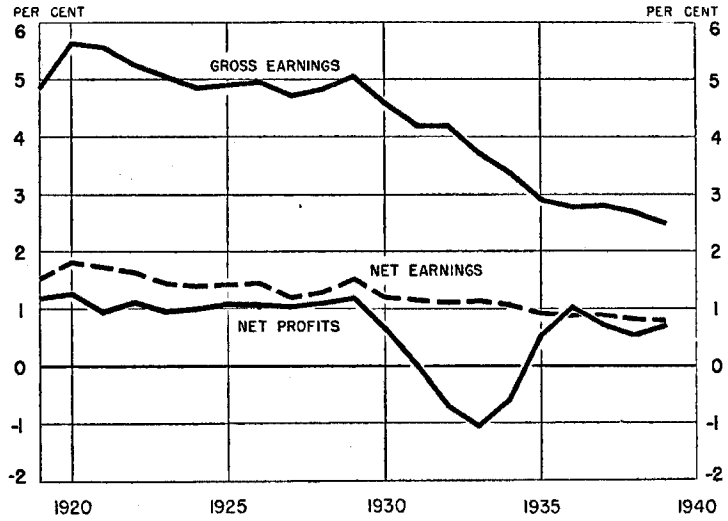
PROFITS OF COMMERCIAL BANKS

The earnings of banks, which would appear to be of primary importance to bank stockholders only, have a long-run bearing on the stability of the banking system as well. Earnings should be sufficient to insulate capital against the losses that banks must anticipate and to maintain capital funds for the protection of depositors. They must, of course, be sufficient to pay expenses, and the degree of this sufficiency greatly influences the quality of personnel that can be attracted to the banking business. Earnings and prospects for earnings also determine whether an individual bank or the banking system as a whole can obtain new capital from the investment markets.

At the present time, in the absence of any considerable demand for new banks, the ability to raise capital is of importance mainly to going institutions. With the redundancy of reserves and low interest rates now prevailing, banks have little incentive to add to their capital except in cases where the management or supervisory authorities think it desirable for the protection of depositors. As a basis of continuance of banks as business institutions, it is important that their earnings be large enough to attract investors.

A simple account of bank earnings for the years 1919–1939 is contained in the accompanying chart, in which commercial banks are represented by operating member banks. Gross earnings, net earnings after expenses but before losses and recoveries, and net profits are related to total assets (roughly equivalent to capital accounts plus deposits and borrowed money). The spread or difference between the lines showing gross and net earnings represents total expenses; the spread between net earnings and net

MEMBER BANK EARNINGS AND PROFITS[a]
(As percentages of total assets)



[a] For data, see Table 22, p. 437.

profits represents net losses and charge-offs, or the excess of gross losses and charge-offs over recoveries and profits on securities sold.

Although bank earnings are influenced by many factors, three have been of particular importance in the past two decades: the rates of interest received from earning assets, the interest rates paid on deposits, and the amounts and timing of charge-offs and losses.

In the past decade there has been a sharp drop in the average rate of bank income from interest, a drop to less than 55 per cent

of the 1929 average. The rates on both loans and investments have declined, but the rate on these two combined has dropped even more because of a shift from loans, the higher rate form, to investments.[11] This drop explains most of the decline in bank gross revenue, since noninterest earnings have remained fairly constant and the total value of earning assets now held is not much less than it was a decade ago. Although the decline of bank interest rates has been general, there are many banks that have not reduced their loan rates a great deal in the past ten years. In 1939, for instance, nearly 1,400 member banks, about 23 per cent of the total, were receiving an average of more than 7 per cent on their loans.

About five-eighths of the decline in interest received by banks has been offset by the decline in interest paid on deposits. Part of the reduction of interest cost is the result of the discontinuance of interest on demand deposits and part is due to the reductions in rates paid on time and savings deposits. Although insured banks are prohibited from paying interest on demand deposits and the amount they can pay on time and savings deposits is limited by regulation, it appears that banks in any event would have voluntarily reduced the amounts paid. At present the rates at many banks, perhaps at a majority of them, are in fact below the maximum levels permitted by regulation.

Even under the most careful credit and investment management, banks usually have some charge-offs and losses. During periods of severe depression, charge-offs are likely to equal or even exceed profits. There appear to be greater differences among banks in this respect than in other matters of earnings and profits. The success or lack of success of most individual banks appears to depend more on ability to hold losses within reasonable bounds than on any other factor.

Consistent, even if moderate, profits are particularly characteristic of the banking business. Few banks make large profits but few are losing enterprises. In the past five years about five-sixths of all operating member banks have made some profit. This is a more consistent record than that of most lines of business endeavor.

[11] For more detailed treatment see "Trend of Member Bank Earnings and Profits," *Federal Reserve Bulletin*, May 1940, pp. 396–97.

SUMMARY

The preceding pages have presented a brief description of commercial banking functions—mainly the depositary and lending-investing services. It has been pointed out that, in one way or another, banks serve many persons and most businesses. Without banks a large part of the complex system of producing and distributing income would slacken or even halt. The universal difficulties at the time of the 1933 banking holiday illustrate how dependent everyone, even though not a depositor or borrower, is on banking services. It is for this reason that bank operations are not solely a concern of those who manage banks but a matter of public interest. It has been the purpose of this paper, therefore, to look mainly at the banking functions which affect that interest. The broader credit function of the banking system as a whole and its primary role in the money system will be discussed in a later paper.[12]

[12] "Money System of United States."

SUPERVISION OF THE COMMERCIAL BANKING SYSTEM

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SUPERVISION OF THE COMMERCIAL BANKING SYSTEM

Supervision of banks by governmental authorities began early in the development of our banking system, over a century ago. From extremely modest beginnings, it has become a major governmental activity, with several Federal agencies and departments of the forty-eight States engaged in the work. The present form and scope of bank supervision result from the multiplicity of banks and chartering authorities existing in the American system of free banking, from the troubles encountered by individual banks, and from the frequency and magnitude of general banking crises. This combination has produced over the years numerous supervisory bodies, various types of supervision, and manifold supervisory activities. While each supervisory agency operates within boundaries drawn by statute, the boundaries overlap considerable areas and in these areas jurisdiction becomes a problem of inter-departmental arrangement.

Bank supervision comprehends more than the examination of banks, although that is a most important phase of the work. Other phases of the supervisory function have to do with: organization and liquidation of banks; issuance, interpretation, and enforcement of regulations; steps taken to effect correction of unsatisfactory conditions disclosed by examinations; submission and review of reports of condition and of earnings and expenses. Changes in capital or corporate structure and grants of authority for the establishment of branches and for the exercise of fiduciary and certain other powers also come within the scope of supervision.

The extensive development of bank supervision by State and Federal governmental agencies is largely the product of two closely related outstanding characteristics peculiar to our commercial banking system. These are:

1. The great number of commercial banks, some 14,500 as of December 31, 1939 (in the early 1920's the total was approximately twice that figure).[1] These 14,500 banks range from village banks with assets of less than $100,000, serving the immediate vicinity, to metropolitan banks with assets more than twenty thousand times that amount, whose activities extend over wide areas of the country and even to foreign fields.

2. The mass and diversification of legislation, both general and detailed, evidencing the effort to control banking operations in the public interest through statutory provisions.

REASONS FOR SUPERVISION

The primary reasons for bank supervision lie in the fact that, by the very nature of their business, banks are quasi-public institutions; and in the further fact that, at times, some banks have failed to meet their obligations and responsibilities, with serious consequences to the public. Banks are the principal source of commercial credit and of the means of payment (formerly in the form of bank notes and later in the form of deposits) through which most of the business of the country is carried on. The ability of banks to meet the credit needs of the country has a great and direct influence upon all types of business and productive enterprises and upon the prosperity of the country as a whole. Failures of banks have effects far beyond the immediate fortunes of the individual depositors or borrowers and frequently have disturbing effects beyond the reaches of the immediate territory served by the banks. The banking business, therefore, has long been regarded by the Federal Government, the States, the public generally, and the bankers themselves, as one that is properly subject to governmental supervision.

Banking troubles and crises have been a major factor in the development of bank supervision. The establishment of the national banking system, with its provisions for the examination and supervision of national banks, was preceded by an era of wildcat banking and of confusion and instability in the currency system. One of the purposes of the Federal Reserve Act, which followed the money panic of 1907, was to establish a more effective supervision of

[1] In these papers, the term "commercial bank" is used broadly to apply to national banks and State banks and trust companies exclusive of mutual savings banks. See discussion in the paper "Banking Structure of United States."

banking. The collapse of the banking system in 1933 was a direct cause of the measures subsequently taken to strengthen supervision and make it more effective.

Another reason for bank supervision lies in the necessity of giving effectiveness to the great mass of detailed legislation and of regulations issued under general legislation affecting banks. The administration of such measures has become a part of the supervisory function.

The fundamental reason for the type of supervision developed in this country and for much of the banking legislation is the great number of banks, which, in turn, is the outgrowth of the policy of free banking adopted by many of the States in the early days and continued in the National Bank Act. A result of this development is the problem of obtaining competent management for so many banks. To a great extent banking has been regarded in this country as a business rather than as a profession requiring special training, with the result that ability in other fields has often been regarded as sufficient and proper training and qualification for the management of a bank. Frequently such managements work out surprisingly well, but too often men who are successful in other fields have not been successful as bank managers. "Too many banks and not enough bankers" has often been said to have been one of the causes for the great number of failures during the years following the World War. A direct cause of the type of bank supervision, with its detailed laws, regulations, and examinations, that has developed in this country, is the fact that the management of banks has been frequently entrusted to men without particular training for banking and the further fact that the earnings of many banks have been too small to permit the employment of well-trained and capable officers.

OBJECTIVES OF SUPERVISION

Briefly stated, the fundamental objective of bank supervision is the maintenance of a sound banking system—a system that is not only in a position to meet its liabilities without difficulty, but is also in a position to serve properly the legitimate credit demands which may be made upon it. So far as the individual banks are concerned, such a system means strong individual units with sound

assets and adequate capital, operated in accordance with banking principles and applicable banking laws and regulations; in short, a system composed of individual banks in strong financial condition, under proper management.

The fundamental purpose of supervision is sometimes described as the maintenance of sound banks, and this raises the question whether measures appropriate to maintain or improve the soundness of individual banks are always sufficient for, or conducive to, the maintenance of a sound banking system as a whole. For example, an individual bank is generally regarded as having strengthened its position if, at the first sign of weakness or impending weakness in prices or values, it sells bonds and calls loans. If such a policy, however, is followed by many banks at the same time, either on their own volition or because of supervisory action, it may cause such a decline in values as to weaken the system as a whole, including the very banks which first undertook to protect themselves.

The same question may be raised in connection with upswings as well as downswings. At times credit extensions altogether sound from the point of view of the individual bank, in that the loans are well secured and collectible, may be part of a general expansion producing inflated values and a resultant collapse and drastic deflation affecting the banking system as a whole. A striking example of this was the general expansion of call loans on the stock exchange in the late 1920's. The direct losses sustained by individual banks from such loans on securities were comparatively insignificant, but the expansion of such loans in the aggregate was an important factor in the disastrous stock-market speculation.

Thus, supervisory measures and policies need be considered in their relation both to the individual bank and to the banking system as a whole.

LIMITATIONS OF SUPERVISION

In stating that the objective of supervision is the maintenance of a sound banking system there is no intent to over-emphasize the powers of supervision. It is fully recognized that supervision is no substitute for management and that of itself it can not insure the maintenance of a sound banking system. It can only contribute to that end.

With respect to loans and investments of individual banks, supervision can and does exert restraints through the administration of applicable laws and regulations which contain restrictions and limitations. Supervision, moreover, can and does exert some restraining influence through the classification of loans in reports of examination and through comments and criticisms by examiners and supervisory authorities as to individual loans and investments and as to investment, lending, and collection policies. On the other hand, supervision can not force an expansion of loans and investments. Even if banks could be compelled to make certain loans or investments or expand their totals, such compulsion would be no proper part of the supervisory function. Supervision can, however, adapt itself to changing circumstances, keep pace with the developments in the banking and economic fields, and see to it that banks are not hampered in the proper discharge of their credit functions by unnecessary supervisory restrictions or the attitude of the supervisory authorities and examiners in the field.

An aim of bank supervision has been and is to minimize bank failures and their disastrous effects. That bank supervision has not prevented bank failures is all too clear. Undoubtedly, however, it has prevented many failures that would otherwise have occurred. As might be expected, its record in this respect has been more successful in dealing with individual cases where the problems are due principally to local conditions than where the problems are due to general and drastic declines in values or freezing of assets over extensive areas. Bank supervision can properly be expected to exert a strong influence toward holding banks up to the average in normal times, and toward raising that average; but it is not reasonable to expect it to prevent wholesale failures in times of general economic distress and general collapse of values.

AGENCIES OF SUPERVISION

There are three Federal agencies actively and directly engaged in bank supervision as a major part of their work. Other Federal agencies, in connection with their regular work, incidentally enter to some degree into the work of bank supervision. The forty-eight States also have departments engaged in the work of supervising banks.

As regards supervision, there are four classes of banks in our commercial banking system: national, State member, nonmember insured, and nonmember noninsured banks. The supervisory agencies and the general scope of their fields are as follows:

The State Agencies. Among these are the oldest agencies of supervision, the history of some of them going back to the early days of the previous century. The direct and primary responsibility for the supervision of all State banks, whether members of the Federal Reserve System or not, and whether insured banks or not, rests with the supervisory agencies of the respective States. State banks are chartered by the State, operate under the supervision of the State authorities, and, in the event of liquidation, have their activities terminated in accordance with provisions of State law.

Comptroller of the Currency. Established in 1863, the Bureau of the Comptroller of the Currency is the oldest Federal agency engaged primarily in bank supervision. The currency function with which it was originally associated is now a comparatively unimportant part of its work. Although the Federal Reserve Act and the Banking Acts of 1933 and 1935 have given the Federal Reserve and the Federal Deposit Insurance Corporation broad powers of examination and supervision, the Comptroller of the Currency remains under the law directly and primarily responsible for the supervision of national banks. National banks obtain their charters from the Comptroller of the Currency and are liquidated under the provisions of the National Bank Act administered by the Comptroller, who alone among the supervisory agencies has the power to appoint a conservator for a national bank or place it in receivership. Under the law the Comptroller is required to examine each national bank at least twice a year and oftener if considered necessary. In one important respect the supervisory powers of the Comptroller of the Currency extend to State member banks; the Investment Securities Regulation issued by the Comptroller of the Currency is applicable to all member banks, State as well as national.

Federal Reserve. With its responsibilities for influencing the supply and cost of bank credit, the Board of Governors of the Federal Reserve System is interested in all phases of supervision and the Board and the Federal Reserve Banks which were created in 1913 have broad powers of examination and supervision.

Although authorized to examine all member banks, as a matter of practice neither the Federal Reserve Banks nor the Board of Governors examines national banks since the Comptroller of the Currency is directly charged with that responsibility by law and reports of such examinations are furnished the respective Federal Reserve Banks and made available to the Board of Governors. State member banks, however, are examined by the Federal Reserve Banks, each of which has a bank examination department. Under the policy of decentralization of administration which has been followed, the examination work has been carried on by the Federal Reserve Banks under the ultimate responsibility of the Board. Under that policy the supervisory relationships of the individual member bank are with the Federal Reserve Bank of its district rather than with the Board in Washington.

In the discharge of its responsibilities the Board has issued a number of regulations; some affecting the banking system as a whole, and others bearing primarily upon the operations of individual banks. While most of the regulations apply to member banks, one (Regulation U relating to loans for the purpose of purchasing or carrying stocks registered on a national securities exchange) applies to *all* banks, including nonmember noninsured banks. Regulation F (Trust Powers of National Banks) is directed to national banks; and Regulation H, which relates to State bank membership, is applicable only to State member banks.

Federal Deposit Insurance Corporation. Created in 1933 to provide deposit insurance, the Federal Deposit Insurance Corporation also has supervisory functions. It regularly examines all insured nonmember banks, and exercises certain supervisory powers with respect to them. With all member banks examined and supervised by either the Comptroller of the Currency or the Federal Reserve, all insured banks are thus brought under the examination and supervision of a Federal agency. The Federal Deposit Insurance Corporation is also empowered to examine national banks and State member banks, but only with the written consent of the Comptroller of the Currency or the Board of Governors of the Federal Reserve System as the case may be. Such examinations have been rare and have been made usually only in anticipation of financial

assistance by the Federal Deposit Insurance Corporation in a rehabilitation program or where a member bank desires to continue as an insured bank after ceasing to be a member of the Federal Reserve System.

The Corporation, however, has broad powers of supervision over all insured banks since it reviews reports of examination of national banks made by the Comptroller of the Currency and reports of examination of State member banks made by the Federal Reserve authorities and can institute proceedings for termination of insurance whenever it finds that an insured bank has not, after citation, effected corrections of unsafe or unsound practices or violations of law or regulation. Upon the termination of the insurance of a national bank by the Corporation, the Comptroller of the Currency is required to appoint a receiver for the bank; and upon termination by the Corporation of insurance of a State member bank, the Board of Governors is required to terminate the bank's membership in the System. Other broad supervisory provisions require the approval of the Corporation for the merger or consolidation of an insured bank with a noninsured bank or the assumption of the liabilities of a noninsured bank by an insured bank, or *vice versa*, and authorize the Corporation to issue certain regulations and to require reports.

The Treasury. No bank, national or State, that is a member of the Federal Reserve System, can operate except under a license issued by the Secretary of the Treasury. Since the licenses are revocable and their provisions are subject to change, the Secretary of the Treasury has extensive potential powers of supervision. In addition, the Reconstruction Finance Corporation can not make a capital investment in a bank except with the approval of the Secretary of the Treasury. The Treasury reviews all recapitalization and rehabilitation programs involving the purchase of preferred stock and capital notes and debentures by the Reconstruction Finance Corporation, and as a result of such review grants or withholds its approval or suggests modifications of the plan previously agreed upon by the management of the bank, the Reconstruction Finance Corporation, and the regular supervisory agencies.

The office of the Comptroller of the Currency is a bureau of the Treasury. The Comptroller is appointed by the President with the

advice and consent of the Senate, but the Deputy Comptrollers are appointed by the Secretary of the Treasury, who also exercises certain authority with respect to other personnel of the office. The legal work of the Bureau is under the General Counsel of the Treasury and the Treasury participates on occasion in the handling of certain supervisory situations.

Reconstruction Finance Corporation. Through contract the Reconstruction Finance Corporation has acquired certain supervisory or quasi-supervisory powers over the banks in which it has a capital investment. These include the authorization to examine, require reports, and make certain requirements with respect to corrections and management. As a matter of fact, the Corporation seldom examines banks itself but reviews reports of examination made by the respective Federal agencies of banks in which the Corporation is interested. A most important supervisory role is that played in connection with recapitalization and rehabilitation programs involving banks in which the Corporation has a capital interest or is being requested to make an investment. In such cases the Corporation frequently has a determining voice both as to the broad outline and the details of the program.

Other Agencies. Under the Trust Indenture Act of 1939, the Securities and Exchange Commission was given authority with respect to important phases of trust department activities of banks in connection with the approval of trust indentures under which securities are issued. Under the Public Utility Holding Company Act of 1935, no registered holding company or subsidiary may have as an officer or director any officer, director, or representative of a bank, except in such cases as rulings and regulations of the Securities and Exchange Commission may permit.

While the National Labor Relations Board and the Wages and Hours Division of the Department of Labor can not be said to be bank supervisory agencies, since their activities are not directed toward banks as such, nevertheless their rulings may affect bank operations and practices and represent a development through which activities of nonmember, as well as member, banks may be brought further within the field of Federal jurisdiction.

FUNCTIONS OF SUPERVISION

The functions of supervision are many and varied and throughout its life a bank is subject to supervision in one or more phases. The principal supervisory relationships in the commercial banking system are shown in the accompanying chart.

Chartering. A national bank receives its charter from the Comptroller of the Currency and a State bank receives its charter from State authorities. For many years the belief was widely shared that any group of men with a certain, and generally rather limited, amount of capital had an almost undeniable right to establish a bank, and over a long period charters were freely granted. Out of the harsh experiences of the banking troubles leading up to the bank holiday of 1933, however, has come the realization that charters should be granted much less freely.

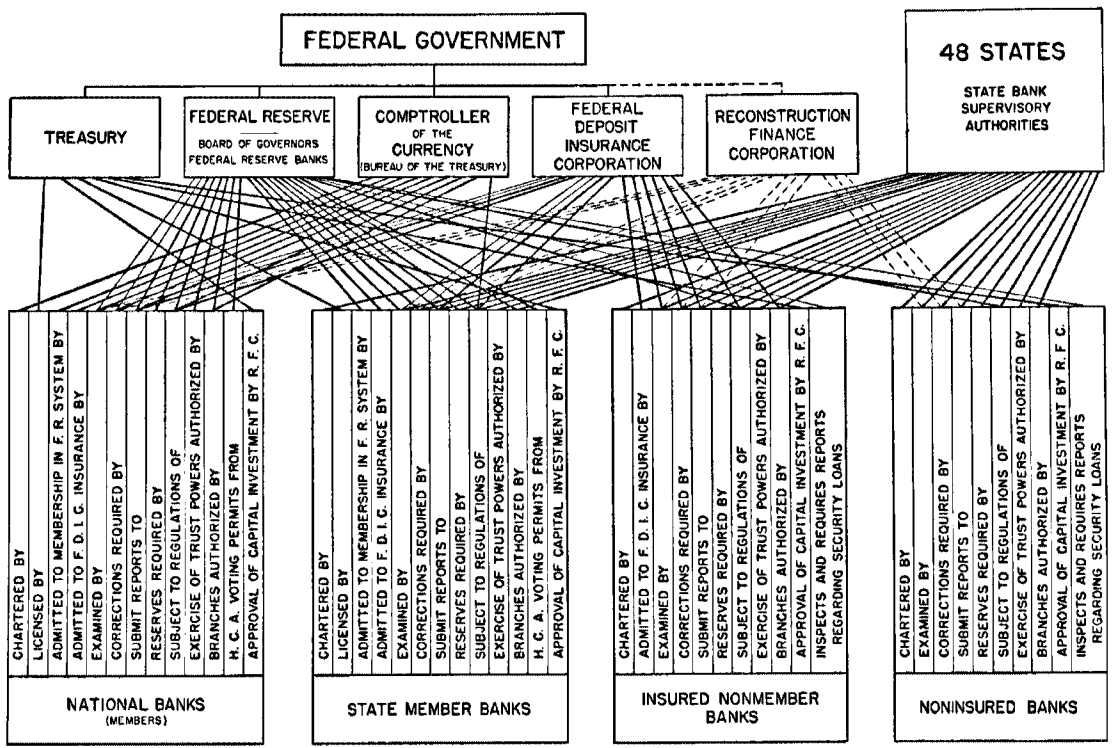
As a result of legislation enacted following the bank holiday, a national bank becomes an insured bank from the time it is authorized to commence business, and the Comptroller of the Currency is required to certify to the Federal Deposit Insurance Corporation that, in authorizing the new bank to commence business, consideration has been given to the following factors:

1. The financial history and condition of the bank;
2. The adequacy of its capital structure;
3. Its future earnings prospects;
4. The general character of its management;
5. The convenience and needs of the community to be served by the bank; and
6. Whether or not its corporate powers are consistent with the purposes of Section 12B of the Federal Reserve Act.

State authorities have also recognized the situation and on their part have endeavored to be more restrictive in the granting of charters, and the National Association of Supervisors of State Banks has gone on record as to the necessity of avoiding past errors in the free granting of charters. As a result of the cooperation of the various Federal and State agencies, it can be said that it is the general aim of all to grant charters only where there is demonstrable need for the bank and reasonable assurance of its success.

SUPERVISION OF THE COMMERCIAL BANKING SYSTEM

Principal Relationships



Liquidation. As supervision plays an important role at the beginning of a bank's life, so it does at the end. In the case of national banks, the Comptroller of the Currency is empowered to appoint a conservator under certain conditions or to appoint a receiver. State authorities have similar powers and responsibilities in the case of State banks.

If the Comptroller of the Currency places a national bank in receivership, he is required to appoint the Federal Deposit Insurance Corporation as receiver whenever the bank has been closed on account of inability to meet the demands of its depositors. The Corporation is also authorized to serve as receiver for insured State banks if so appointed by the State authority.

During the Operating Life of a Bank. It is during the period of active operation that banks are subject to most phases of supervision. The field of supervision, however, is separate and apart from that of management. The operation and management of a bank are the responsibility of its directors and officers. The responsibilities of supervision during the active life of a bank are: (1) to ascertain the solvency and condition of the bank; (2) to determine the character and ability of the management; (3) to issue regulations as authorized; (4) to administer applicable banking laws and regulations; and (5) to take appropriate and effective steps toward obtaining correction of hazardous or unsatisfactory conditions.

The following supervisory functions are of general and continuing applicability to bank operations. Functions of more limited and occasional applicability will be described later.

Regulations, Rulings, and Instructions. A distinctive characteristic of our banking system is the mass of banking legislation. In some important respects the legislation, moreover, is supplemented by formal regulations issued by various agencies under responsibilities delegated by law.[2] It is important to note that in some cases one supervisory agency issues regulations affecting banks under the immediate supervision of other agencies. Thus the Comptroller of the Currency issues a regulation regarding the purchase of investment securities to which State member banks are subject as well

[2] For a list of the regulations issued by the various agencies, see pp. 461–63.

as national banks. So far as the State member banks are concerned, administration and enforcement of the regulation rest with the Federal Reserve authorities rather than with the Comptroller of the Currency. On the other hand, the Board of Governors issues a regulation that pertains to the operations of national banks (Regulation F, Trust Powers of National Banks) but enforcement of the regulation rests with the Comptroller of the Currency. The Federal Deposit Insurance Corporation has issued one regulation that is applicable only to insured nonmember banks and others that are applicable to all insured banks.

Having the same general effect as regulations, but differing somewhat in form, are the instructions issued from time to time by the various supervisory agencies, such as instructions for preparation of call reports of condition, reports of earnings, reports of deposits for computation of reserves, reports of deposits for computation of assessment of deposit insurance, etc.

Closely related to regulations and instructions are rulings issued by the various supervisory agencies interpreting provisions of applicable banking laws, regulations, and instructions. Such administrative rulings form a part of the code under which banks operate and to which their practices must be adjusted.

Examinations. Examination is only one of the functions of supervision. Its purpose is to ascertain the facts; if unsatisfactory conditions are disclosed, other phases of supervisory activity are then concerned with obtaining the necessary corrections. Information obtained through examinations serves a threefold purpose: (1) as a basis for supervisory action with respect to the particular situation; (2) as a basis for corrective action by the bank management itself after consideration of the information thus disclosed and brought to the attention of the officers and directors of the bank; (3) as a guide to the supervisory authorities in the framing of general regulations and supervisory policies.

The information gained through bank examinations, along with that obtained from periodic reports of condition and from other sources, constitutes part of the data necessary for the intelligent formulation of broad national credit and banking policies.

An important phase of examination procedure as followed in

this country is the appraisal by supervising agencies of the assets of banks. The importance of such appraisals has greatly increased with the decline in the ratio of capital to liabilities. In 1875 approximately 34 per cent of the total resources of all commercial banks was furnished by the capital accounts. By 1900 the figure had dropped to 20 per cent, and by 1925 to 12 per cent. As of December 31, 1939, capital accounts amounted to but slightly more than 10 per cent of the resources of all commercial banks.

In this connection it may be noted that the great decline in true commercial credits and the growth in securities holdings of banks that have been so marked during the past decade have added to the difficulties of supervision as well as management. Both had been geared primarily to the extension of short-term credit direct to borrowers. The general expansion of activity of banks in the field of investments brought problems for which neither had been fully prepared by experience.

Corrective Requirements. A most important function of supervision is the review of the condition of banks as disclosed by reports of examination; the determination of what, if any, corrective action by the supervisory authorities is needed in any case; and the obtaining of the necessary corrections. Typical of the matters which come within this field are compliance with applicable laws and regulations, compliance with sound banking practices, elimination of losses, provision of adequate capital, strengthening of active management or directorates, rehabilitation programs, and mergers and consolidations.

Reports. Since early days banks have been required to submit reports to governmental agencies. The accompanying table shows the principal reports required of banks by the supervisory agencies today. A detailed list of the reports and information as to the frequency of submission is contained in the appendix.[3]

Counsel and Advice. Although not established by law, the giving of counsel and advice has become an important supervisory function. This does not mean that examiners or other supervisory officials consider themselves more capable than bank directors and officers.

[3] See pp. 464–66.

PRINCIPAL REPORTS REQUIRED OF BANKS BY INDICATED SUPERVISORY AUTHORITIES[a]

REPORTS	CLASS OF BANK AND SUPERVISORY AGENCY			
	National	State Member	Insured Nonmember	Noninsured Nonmember
Report of condition	Comptroller[b]	Reserve Bank[c] State	F.D.I.C. State	State
Certified statement of deposits	F.D.I.C.	F.D.I.C.	F.D.I.C.	
Report of earnings and dividends	Comptroller[b] R.F.C.[d]	Reserve Bank[c] State R.F.C.[d]	F.D.I.C. State R.F.C.[d]	State R.F.C.[d]
Report of deposits and reserves required	Reserve Bank	Reserve Bank	[e]	[e]
Weekly condition report of banks in selected cities	Reserve Bank	Reserve Bank		

[a] Reports required generally of all corporations, such as tax returns and reports to the Social Security Board, Wages and Hours Administration, etc., are not included in this table.

[b] Copies are also furnished to the appropriate Federal Reserve Bank.

[c] Reports are submitted in duplicate to the respective Federal Reserve Banks, which furnish copies to the Board of Governors.

[d] If bank has sold preferred stock, capital notes, or debentures to the Reconstruction Finance Corporation.

[e] Requirements vary as between States.

However, because of the experience gained from close association with many banks and their varied problems, and of the advantages offered by a detached point of view, the supervisory agencies are often in a position to offer valuable and constructive advice and counsel. This has been generally recognized and such services have been freely availed of, particularly by the smaller banks.

The following supervisory functions are of limited and occasional applicability as distinguished from those of general and continuing applicability. The supervisory functions with respect to applications for deposit insurance, admission to membership in the Federal Reserve System, establishment of branches, certain extensions of activities, and changes in corporate structures are somewhat analogous to the functions of chartering.

Admissions to Membership in the Federal Reserve System. State

banks become members of the Federal Reserve System after approval by the Board of Governors of their applications for membership. National banks, on the other hand, become members of the Federal Reserve System upon organization. They are, in effect, admitted to membership in the System by the Comptroller of the Currency without any action by the Board of Governors.

Admissions to Benefits of Deposit Insurance. A similar situation prevails in connection with admissions to the benefits of insurance. National banks become insured banks upon authorization by the Comptroller of the Currency to commence business. State banks become insured banks either automatically upon admission to membership in the Federal Reserve System or upon approval by the Federal Deposit Insurance Corporation in the case of nonmember banks. Only in the latter case, however, does the Federal Deposit Insurance Corporation have statutory authority to pass upon additions to the list of insured banks. Before approving the application of a nonmember bank for insurance, the directors of the Federal Deposit Insurance Corporation are required to give consideration to the same factors which the Comptroller of the Currency is required to consider before authorizing a new national bank to commence business (see page 198). Likewise, in the case of admission of a noninsured bank to membership in the Federal Reserve System, the law requires that the Board of Governors certify to the Federal Deposit Insurance Corporation that consideration has been given to the same factors.

Branches. The establishment of branches is subject to approval by supervisory agencies. For establishment by national banks of either out-of-town branches or branches within the head-office city, the approval of the Comptroller of the Currency is required. The approval of the Board of Governors, however, is required for the establishment by national banks of branches in foreign countries or dependencies or insular possessions of the United States. Under the provisions of the Federal Reserve Act, State member banks are required to obtain approval of the Board of Governors for the establishment of out-of-town branches in this country and the establishment of branches abroad. The act, however, does not cover the establishment of branches within the head-office city.

Under other provisions of the Federal Reserve Act nonmember insured banks are required to obtain the approval of the Federal Deposit Insurance Corporation for the establishment of any branch, wherever located. Establishment of branches by State banks, whether member, insured nonmember, or noninsured nonmember, is also subject to requirements of the respective State laws and regulations.

Trust Powers. For permission to exercise trust powers, national banks must obtain authorization from the Board of Governors. State member banks that were not exercising trust powers at the time their applications for membership were approved are required under conditions of membership to obtain the permission of the Board of Governors to exercise trust powers. This is in addition to any authorization necessary under State law.

Changes in Capital Structure. The requirements of the respective chartering authorities must be met in connection with changes in capital. Reductions of capital may come within the field of supervisory agencies, whether they were the chartering agencies or not. Specific approval by the Comptroller of the Currency is required for reduction of capital by national banks, and approval of the Federal Deposit Insurance Corporation is required for reduction of capital by nonmember insured banks. There is no provision in law requiring approval by a Federal supervising agency for reduction of capital by State member banks. However, under conditions of membership that have been prescribed for several years, State member banks are required to obtain approval of the Board of Governors for reductions of capital.

Mergers and Consolidations. The merger or consolidation of a noninsured bank with an insured bank, or the assumption of liabilities of a noninsured bank by an insured bank, or *vice versa*, is subject to approval by the Federal Deposit Insurance Corporation. Other mergers, consolidations, or absorptions may or may not require approval of supervisory agencies. As part of their regular supervisory function, however, the agencies endeavor to keep informed as to all such developments—encouraging those which are constructive and discouraging those which are not.

Holding Company Affiliates. The provisions of the Banking Act

of 1933 with respect to holding company affiliates of member banks added new supervisory functions affecting both the banks and the holding company affiliates controlling them.

As a means of regulating group banking, the Banking Act of 1933 provides that holding company affiliates may not vote the stock which they own or control of their subsidiary member banks without first obtaining voting permits from the Board of Governors of the Federal Reserve System. The law authorizes the Board, in its discretion, to grant or withhold such permits, as the public interest may require, but sets up certain minimum requirements for the issuance of the permits, including submission of the holding company affiliate to examination by examiners authorized to examine its controlled banks, maintenance of reserves of readily marketable assets by the holding company affiliate for the protection of its banks, complete divorcement of the holding company affiliate from securities companies, and restriction of dividend payments by the holding company affiliate to its actual net earnings. In the exercise of its discretion in the granting of voting permits, the Board has adopted a standard form of agreement which it requires each holding company affiliate to execute before receiving a general voting permit. In this manner more specific provisions are made for the regulation of financial relationships between organizations in the bank group and to further the development and maintenance of sound financial condition and management policies of the holding company affiliate and its subsidiary and affiliated organizations. Revocation of a voting permit involves penalties upon both the holding company affiliate and its subsidiary member banks.

Supervision of holding company affiliates was first provided for by the Banking Act of 1933. Certain additional administrative responsibilities with respect thereto were vested in the Board by the Banking Act of 1935, the Revenue Acts of 1936 and 1938, and the Investment Company Act of 1940.

The statutory definition of a holding company affiliate includes only corporations and other organizations which control member banks, and the regulation of group banking provided by the law does not apply to organizations which control only nonmember banks, whether insured or noninsured.

INCIDENCE OF SUPERVISION ON INDIVIDUAL BANKS

So far bank supervision has been discussed almost entirely from the point of view of the public and the governmental agencies. Some consideration of the matter from the point of view of the individual bank would seem appropriate.

National Banks. In the course of its regular operations, a national bank has dealings with the following bank supervisory agencies: the Comptroller of the Currency, the Federal Reserve, the Federal Deposit Insurance Corporation, and the Reconstruction Finance Corporation if the Corporation has a capital interest in the bank. Twice a year, and more frequently in special circumstances, the bank is examined by national bank examiners. Requests for corrective action considered desirable in the light of the examination come from the Comptroller of the Currency, and discussions and negotiations may be carried on with either the District Chief National Bank Examiner or the Comptroller's Office in Washington, through either correspondence or personal visits. Three times a year or oftener, as called for, the bank forwards a report of condition to the Comptroller and a copy to the Reserve Bank of the district. If the bank is one of the 400 weekly reporting member banks, it also submits a condensed statement of condition weekly to the Reserve Bank, where all the figures are summarized for publication by the Board of Governors. Semi-monthly, weekly, or semi-weekly, depending on its location, the bank submits a statement of deposits to its Reserve Bank in connection with its report of reserve requirements. Semi-annually the bank submits a report of deposits to the Federal Deposit Insurance Corporation. Under the law, however, deposits as reported for reserve purposes and in reports of condition are not the same as reported for assessment purposes. Twice a year the bank sends a report of earnings and dividends to the Comptroller of the Currency and a copy to the Federal Reserve Bank. If the Reconstruction Finance Corporation has a capital investment in the bank, a similar report is furnished to that Corporation.

If the bank wishes to establish a branch within the city or State in which it is located, it applies to the Comptroller of the Currency for permission. If it wishes to establish a foreign branch, it applies through the Federal Reserve Bank to the Board of Governors for

permission. If it wishes to exercise trust powers, it makes application to the Board of Governors, also through the Federal Reserve Bank of the district.

In the regular operations of his bank, the national banker must be familiar with or consult a great many statutory provisions and rules and regulations. These include the many detailed statutory provisions regarding his lending and investment operations; the regulation of the Comptroller of the Currency regarding the purchase of investment securities; the regulations of the Federal Deposit Insurance Corporation regarding reports of deposits and advertising; and the regulations of the Board of Governors relating to reserves, trust powers (if the bank exercises such powers), check clearing and collection, loans to executive officers, payment of interest on deposits, and loans for the purpose of purchasing or carrying stocks registered on a national securities exchange. If the bank acts or anticipates acting as trustee under security issues, the banker must also be familiar with the requirements of the Trust Indenture Act administered by the Securities and Exchange Commission. In the case of directors or proposed directors, the question frequently arises whether the relationship is permissible under various Federal laws or the regulations of the Board of Governors and, in some cases, whether it is authorized by the Securities and Exchange Commission.

It is in connection with major corrective, rehabilitation, or recapitalization programs, however, that the relationships become more involved. The banker then finds himself at various times dealing with representatives of the Comptroller of the Currency, the Reconstruction Finance Corporation, the Federal Deposit Insurance Corporation, and the Federal Reserve.

Insured State Banks. With insured State banks, the situation is similar in many respects but even more complicated. The bank is examined by Federal examiners as well as by State, either jointly or independently at different times. In either event, the banker may receive reports of examination reflecting materially different classifications and conclusions. Both the State authorities and the Federal authorities (the Federal Reserve in the case of State member banks and the Federal Deposit Insurance Corporation in the

case of insured nonmember banks) may enter the discussions or negotiations for correction. In the case of a State member bank the banker may have to deal both with the Federal Reserve and the Federal Deposit Insurance Corporation.

An insured State bank is required to submit reports of condition to both the State and Federal agencies (the Federal Reserve Bank in the case of member banks and the Federal Deposit Insurance Corporation in the case of insured nonmember banks). In most of the States, agreement has been reached between the Federal agencies and the State authorities upon a form of report, the submission and publication of which satisfy both the State and Federal requirements. In six States, however, a State member bank is required to publish a statement of condition in one form in response to Federal requirements and a statement of condition in another form, perhaps on the same day, as required by State authorities.[4]

SUMMARY

Banking legislation, from which all supervision of banks by governmental agencies stems, reflects the cumulative results of attempts to meet specific situations, emergencies, and competitive conditions. As a consequence the development of the functions and mechanism of supervision has been piecemeal in character and not in accordance with comprehensive plans made with reference to the country's banking needs as a whole. The Federal Government and the forty-eight States share the responsibility for bank supervision. Within the Federal Government authority over the banks is scattered among several agencies. The Comptroller of the Currency has the responsibility for the chartering and closing of national banks

[4] The Federal statutes with respect to publication of reports of condition differ as between State member and State nonmember insured banks. The law requires State member banks to submit and publish reports of condition in a form approved by the Board of Governors. Insured nonmember banks are required under the law to submit reports of condition to the Federal Deposit Insurance Corporation in a form approved by that Corporation. The Corporation is authorized to require the publication of such reports, but has not made such requirements. The forms of condition reports issued by the Corporation and the Board are practically identical but the question as to single joint publication or publication of two reports, one to meet State requirements and one to meet Federal requirements, arises only in connection with State member banks.

and the primary responsibility for their examination and supervision while in operation. The Federal Reserve System has some degree of supervision over all member banks, but in matters relating to national banks the primary responsibility is with the Comptroller, and in those pertaining to State banks, member as well as nonmember, it is with State supervisory authorities. The examination and related supervisory powers of the Federal Reserve are exercised primarily with respect to State member banks. The Federal Deposit Insurance Corporation has responsibilities in regard to all insured banks, and exercises its examination and supervisory powers particularly in the case of insured banks which are not members of the Federal Reserve System. There is no definite sharp line of demarcation between the areas of the three agencies. In some respects each agency has responsibilities for banks which are primarily under the supervision of another agency. The Treasury Department, under the emergency laws of 1933, has the responsibility for licensing member banks and for approval of the purchase of bank stock by the Reconstruction Finance Corporation. This Corporation, because of its authority to make loans to banks and to purchase preferred stock and debentures from them, has proprietary and contractual powers of supervision over such banks as receive loans or capital from the Corporation.

There are three groups that have a direct and vital interest in the proper and efficient supervision of the banking system:

1. The authorities charged with responsibility for supervision;
2. The banks subject to supervision;
3. The public, to serve whose interests both the banks and the supervisory agencies were created.

Bank supervision is only a means to an end and has been adapted in times past to meet changed or changing conditions. The broad aim of supervision seems well established. The question, however, of what procedure, practices, and allocation of responsibilities will be most effective in the accomplishment of this purpose, not only with respect to individual banks and their particular problems, but also with respect to problems affecting the banking system as a whole and the general economic situation, remains to be answered.

POLICY AND PROCEDURE IN BANK EXAMINATION

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POLICY AND PROCEDURE IN BANK EXAMINATION

Bank examination is a part of the work of bank supervision, which also includes among its principal activities the issuance of regulations, enforcement of legislative and administrative requirements, and analysis and publication of reports. The purpose of bank examination is to determine and appraise the facts with respect to the operation of individual banks. It involves verification and appraisal of assets, determination of liabilities as far as practicable, investigation of compliance with legal requirements, and appraisal of the ability and character of management.

Examinations are conducted in the interest of (1) the public, because a sound banking system is essential to the national economy and sound banks make a sound banking system; (2) the individual depositor, the safety of whose money depends on the character of the assets in which the bank's funds are invested and the way in which they are administered; (3) the stockholder, who invests in the banking business in the hope that his money will bring a return as a result of successful banking operations and will not have to be used to absorb losses; (4) the directors, who accept grave responsibility for the direction and supervision of the affairs of the bank and to whom the examiner's report gives an independent view of its condition; and (5) the officers and operating personnel, who may find the examiner's observations helpful in the performance of their duties. Examinations also serve to protect good banks from the competition of banks that without the restraint of examination might be improperly operated and from the effects of failure of such institutions.

POLICY IN BANK EXAMINATION

The general banking laws of the several States and the United States prescribe the limits within which the several supervisory authorities may make policy decisions with regard to the examination of banks. Such laws usually express broad public policy with

regard to bank assets and management through provisions such as those fixing minimum capital requirements, restricting the amount and kinds of loans to be made by banks or the amount and kinds of collateral to be accepted, specifying the character and amount of securities a bank may purchase, providing for the removal of officers and directors for cause, and requiring a minimum number of periodic examinations to check upon compliance with the law. Many banking laws are necessarily expressed in general terms, however, and authorize the supervisory authorities to define and implement their provisions by issuing necessary rules and regulations, and to exercise a certain amount of discretion in the process. Nevertheless, neither legal restrictions nor general regulations and rulings of the supervisory authorities attempt to define in detail the circumstances and conditions under which all loans and investments must be made. Bank management must exercise its own discretion and credit judgment within the framework of prescribed limitations and is alone responsible for decisions within that framework.

The frequency with which particular institutions should be examined, selection and assignment of examiners, and review and action upon appraisals of bank assets and management contained in examiners' reports are matters involving policy decisions by supervisory authorities. As will be shown later, the bank examiner participates in policy action when he appraises and reports on bank assets and management. By virtue of the review of all reports by the supervisory authorities, the practices of the different examiners are coordinated with one another and with the policy and practice of the authorities. The constant review of reports on many banks often discloses the need for changes in broad policies even as the review of examinations of individual banks serves as a basis for supervisory policy with respect to single institutions. Thus, although examination is largely a fact-finding function, it is constantly involved, as a part of the supervisory process, in the formulation of policy with respect to individual banks and sometimes points the way to necessary changes in the general policy expressed in banking laws.

As was indicated in the preceding paper, there is no one super-

visory authority to decide matters of policy with respect to the supervision and examination of all banks. Consequently, banking institutions sometimes fall within the jurisdiction of more than one set of supervisory rules and regulations. The basic objectives of all supervisory authorities are substantially the same, however, and fundamental policies are similar. Through an agreement reached in June 1938 the three Federal agencies empowered by Congress to examine banks established a uniform treatment of loans and investments in their administration of bank examinations. A large number of State supervisory authorities have adopted the same or similar procedure.

The Board of Governors of the Federal Reserve System, one of the parties to the agreement, has commented as follows upon the policy underlying the prescribed treatment of loans and investments:

> . . . the principle is clearly recognized that in making loans, whether for working capital or fixed capital purposes, the banks should be encouraged to place the emphasis upon intrinsic value rather than upon liquidity or quick maturity.
>
> Similarly, the revised examination procedure recognizes the principle that bank investments should be considered in the light of inherent soundness rather than on a basis of day-to-day market fluctuations. It is based on the view that the soundness of the banking system depends in the last analysis upon the soundness of the country's business and industrial enterprises, and should not be measured by the precarious yardstick of current market quotations which often reflect speculative and not true appraisals of intrinsic worth.[1]

It was agreed that the captions "Slow," "Doubtful," and "Loss," long used in classifying bank assets, should be abandoned, and that all assets should be classified as I, II, III, or IV. The meaning of the classifications as applied to *loans* is set forth in the following definitions:

> I. Loans or portions thereof, the repayment of which appears assured. These loans are not classified in the examination report.
>
> II. Loans or portions thereof which appear to involve a substantial and unreasonable degree of risk to the bank by reason of an unfavorable record or other unsatisfactory characteristics noted in the examiner's comments. There exists in such loans the possibility of future loss to the bank unless they receive

[1] *Federal Reserve Bulletin*, July 1938, pp. 563–66.

the careful and continued attention of the bank's management. No loan is so classified if ultimate repayment seems reasonably assured in view of the sound net worth of the maker or endorser, his earning capacity and character, or the protection of collateral or other security of sound intrinsic value.

III. Loans or portions thereof, the ultimate collection of which is doubtful and in which a substantial loss is probable but not yet definitely ascertainable in amount. Loans so classified should receive the vigorous attention of the management with a view to salvaging whatever value may remain.

IV. Loans or portions thereof regarded by the examiner for reasons set forth in his comments as uncollectible and as estimated losses. Amounts so classified should be promptly charged off.

The procedure under the agreement broadly divides *securities* into those of investment character and those of speculative character. The former are listed in Group (not classification) I, the latter in Group II. Defaulted bonds are listed in Group III and stocks in Group IV. The agreement contains the following definitions:

Group I securities are marketable obligations in which the investment characteristics are not distinctly or predominantly speculative. This group includes general market obligations in the four highest grades and unrated securities of equivalent value.

Group II securities are those in which the investment characteristics are distinctly or predominantly speculative. This group includes general market obligations in grades below the four highest, and unrated securities of equivalent value.

Group I securities are listed at book value but, as in the case of all securities, where book value includes a premium, the premium must be properly amortized. Securities in Group II are appraised at their average market price for eighteen months just preceding the examination, and Group III and Group IV securities at current market price.

Net depreciation in Group II securities, determined on the basis of the appraisal described, is classified III and net market depreciation of securities in Groups III and IV is classified IV.

Although the agreement does not touch upon all the practices that involve decisions on policy, it does provide uniform general standards for the appraisal of important bank assets.

ORGANIZATION FOR BANK EXAMINATION

The inspection or examination of banks originated as an exercise of sovereignty by the chartering authority for the purpose of determining that the charter powers granted were not being abused, especially those related to note issue. Unfavorable experience from time to time, emphasized by the expansion of banking activity to meet the needs of an expanding national economy, led to more elaborate means of control and the creation of State and Federal agencies specifically charged with supervision and, as a necessary detail, with examination of banks. There are now fifty-one agencies engaged in the examination of banks: the supervisory authority of each of the forty-eight States and the three Federal agencies—the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Federal Reserve System.

In practice, an individual bank is examined by only one or, except in extraordinary circumstances, not more than two of such agencies. *National banks* are examined by the Comptroller of the Currency, *member State banks* by the State authorities and by the Federal Reserve Bank of the district in which they are located, *nonmember insured State banks* by the State authorities and the Federal Deposit Insurance Corporation, and *noninsured State banks* by the State authorities.

With the consent of the Comptroller of the Currency in the case of national banks, and of the Board of Governors of the Federal Reserve System in the case of member State banks, the Federal Deposit Insurance Corporation may examine or participate in the examination of such banks. Noninsured State banks are examined by the Federal Deposit Insurance Corporation before being accepted for insurance of their deposits except when admitted to the Federal Reserve System or converted to a national bank. Nonmember State banks are examined by the Federal Reserve authorities prior to admission to membership in the System. State banks converting to national banks are examined by the Comptroller prior to conversion and national banks converting to State banks are usually examined prior to conversion by the appropriate State authority. They may also be examined by the Federal Deposit Insurance Corporation if they are to become nonmember insured

banks, or by the Federal Reserve authorities if they are to become State bank members of the Federal Reserve System. In such unusual circumstances a bank may be examined simultaneously or independently within a short period by as many as three agencies.

In some cities the operations of the clearing-house association include examination of the members by examiners for the association. The members subject themselves to such examinations voluntarily for their mutual protection and benefit.

Each of the State supervisory authorities maintains a central office, usually in the State capital, and each of the Federal agencies has a central office in Washington. In some States district offices are maintained under deputy State bank commissioners or supervisors. The several Federal Reserve Banks maintain bank examination departments and examine member State banks in their respective districts; the field examiners for the Comptroller of the Currency operate under district chief national bank examiners having offices in each Federal Reserve district, located in the city in which the Federal Reserve Bank for the district is located; and the Federal Deposit Insurance Corporation has district offices in charge of a supervising examiner in districts generally conforming but not always coterminous with the Federal Reserve district.

At each Federal Reserve Bank the work of the vice president in charge of examinations and of his office staff consists largely in the direction of the work of field examiners and other supervisory activities such as the review and analysis of reports of examination and direct supervisory contact with the banks examined, including the formulation of corrective requirements and follow-up to determine compliance therewith. Likewise, the district representatives of the Comptroller of the Currency and the Federal Deposit Insurance Corporation direct the operations of field examiners in their respective districts and operate as the direct contact with the banks therein. In each of the districts the field examiners may be assigned to certain zones within the district. State authorities also in some cases have district organization within the State.

As a rule the central office of each supervisory authority directs in general and reviews in detail the process of examination as a part of its supervisory activity. These offices coordinate the activi-

ties of the district offices with a view to uniformity of procedure. The district offices may operate with a greater or less degree of autonomy, more marked in the case of the Federal Reserve Banks, and take steps to secure corrections of at least minor or routine nature without direction from the central office. Through the district offices the operations of field examiners are coordinated with a view to uniformity.

Field examiners report to the district offices and the district offices to the central office, the field examiners usually being the direct contact with individual banks. The relationship is not inflexible, however, and the central office may and, in varying degree, does maintain direct contact with the banks examined, particularly in the matter of securing corrections. The Comptroller of the Currency and the several State authorities customarily maintain more direct contacts, the central office of the Federal Deposit Insurance Corporation less direct. As previously indicated, the Board of Governors of the Federal Reserve System leaves the matter of direct contact with the banks examined in the hands of the several Federal Reserve Banks as far as practicable.

THE BANK EXAMINER IN THE FIELD

The bank examiner has been described as the eyes and ears of the supervisory agencies. The justice and effectiveness of the actions and the rulings of such agencies depend in large measure upon the accuracy of the examiner's findings and the soundness of his judgment. Therefore, careful evaluation of the qualifications of individual examiners and the tasks assigned them is one of the chief concerns of the supervisory authority.

A large portion of the work of bank examiners consists of verification and computation of a clerical nature that may be performed by junior examiners, usually designated as assistant examiners. The appraisal of assets and management, on the other hand, requires a greater amount of experience and training and often a high degree of specialization. Thus examiners at the central offices and in the field may be further designated as chief examiners, senior examiners, trust examiners, supervisory examiners, review examiners, etc., indicating their responsibility and the nature of their work. The types of ex-

aminers usually participating in the examination of an individual bank of considerable size are senior examiners, trust examiners, examiners, and assistant examiners. The designation "senior" is seldom used except within the department or agency.

The examiner who conducts the examination of a small bank without assistance must be competent to complete all phases of his work in the particular institution. Such competence would hardly be expected of an assistant examiner. For larger institutions there must be examiners qualified to handle highly technical matters, such as lists of investment securities, or trust and foreign departments. Some examiners may be specialists or experts in a particular field but not qualified in all phases of bank operations; others may be well qualified to examine small rural banks but not qualified to examine large banks. A competent judge of the credits usual in a region producing cotton, for instance, might not be a competent judge of credits in an industrial region or in one producing wheat or cattle.

One examiner may be able to complete the examination of a small bank in a day or less, except for the compilation and preparation of his report, but larger banks may require an increasing number of examiners as the volume of assets and liabilities and the complexity of operations increase. Each examination of a bank of sufficient size to require the services of more than one examiner is in charge of a designated examiner who signs the report.

It should be noted that the examination of a bank does not constitute a full audit. An audit includes the verification of all liabilities as well as assets. To make a full audit of a bank it would be necessary to verify all depositors' accounts through direct contact with the depositors and to trace many items or entries through the books from their inception. Also, the examiner can not verify the genuineness of the signatures on every note nor insure the accuracy of every figure entered on the books. When he satisfies himself that the assets of the bank are of the kind and amount indicated by the records, he must assume that the entries giving rise to the grand totals are correct unless errors or false entries are discovered in ordinary course or upon investigation after cause for suspicion. Banks are usually protected in this respect by fidelity bonds and insurance against fraud.

The examiner's purpose is to verify and appraise assets as shown by the bank's books, to verify liabilities in so far as this may be practicable through comparing subsidiary record totals with general ledger control accounts or through direct verification with creditors, to determine compliance or failure to comply with statutory and regulatory limitations and requirements, to appraise the management, and to give consideration to any and all factors affecting the solvency and successful operation of the bank.

The examiner must be familiar with the banking laws to be enforced by the supervisory authority with which he is connected. If he represents a Federal Reserve Bank and is engaged in examining a State member bank, for instance, he checks for compliance with the Federal Reserve Act and the regulations of the Board of Governors, appropriate sections of the National Bank Act and the regulations of the Comptroller of the Currency, and the State banking laws.

Initial Steps in Bank Examination. Having been assigned to the examination of a bank, the examiner presents his credentials to an officer of the bank and proceeds to establish effective control over the assets and records of the bank. Since the examiner's report will cover the condition of the bank as of the close of business on a given day, he usually begins work after the bank has closed its doors and its books for the day's business or before it opens the following morning.

First of all, the examiner seals all vaults or vault compartments containing cash, securities, or notes, and takes physical possession of the cash and other assets at the counters and of the general ledger accounts. The counter cash and securities and items for clearing and collection are verified promptly in order that the routine operations of the bank may suffer as little interruption as possible. Assets under seal are then verified and the seals removed with all possible dispatch with the same purpose in view.

The physical inspection and count of a bank's assets include verification of any assets held by others for the account of the bank. The amount of securities held in safekeeping by city correspondents, for instance, is verified by direct correspondence with the holders.

As part of the process of verification, subsidiary ledgers and records of the bank are totalled and the totals checked against the

general ledger control accounts. The securities and notes held by the bank are listed for later appraisal. After the physical inspection of assets and cross checks to insure correct entries, the examiner can release his control over the physical assets and records to the operating personnel of the bank. At this point he takes up an appraisal of the bank's assets, in connection with which he observes the general caliber of bank management as expressed by the condition of the assets and compliance with legal and regulatory restrictions.

Except with respect to necessary fundamentals, the process of examination varies in accordance with the kind and variety of assets held by the bank and of course varies from time to time and place to place to meet special conditions. The following abbreviated description of the examiner's procedure with respect to two of the principal items appearing in a bank statement will indicate the character of work involved.

Cash on Hand and Due from Banks. This item includes actual cash, cash items,[2] checks on other banks, and balances on deposit in other institutions.

Currency and coin held by the bank are, of course, subject to actual count and tally against bank records. Amounts due from other banks are verified by correspondence with the banks involved. Checks held by the bank on other banks in the same city for direct presentation or collection through the clearing house are verified and forwarded under seal with the request that any items returned unpaid be returned to the examiner in order that he may check for irregularities.

A cash item generally represents (1) an extension of credit, (2) an unabsorbed expense, or (3) an unacknowledged loss carried in the cash account on a temporary basis. Cash items representing extensions of credit may consist of checks or other items, such as coupons, returned unpaid for various reasons and awaiting presentation to the endorser or depositor; checks held to avoid overdrafts; and miscellaneous advances. Unabsorbed expense items may represent advances to employees for travel or other expense to be incurred on behalf of

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[2] These are miscellaneous items held in the cash account, not to be confused with checks in the usual process of collection.

the bank, small items of expense to be held for entry on the books of the bank as a single item, or miscellaneous items held as a matter of convenience for later entry. Fraudulent or worthless checks, counterfeit money, or other worthless items may represent unacknowledged losses. The carrying of actual but unacknowledged losses at value is, of course, never justified and all items carried temporarily as cash must be carefully scrutinized. In general, they are subject to criticism unless they are readily convertible into cash and their existence can be reasonably justified.

The legal limitations and requirements to be considered in connection with the cash account are (1) reserve requirements, (2) limitations upon the balances to be carried with any other one bank or any other bank of a particular kind, and (3), in connection with cash items representing extension of credit as described above, legal limitations upon such extensions.

Loans and Discounts. This item includes all notes, secured and unsecured, including mortgage loans and discounted paper. It may also include bills of exchange, such as trade acceptances and bankers acceptances held by the bank.

The examiner first lists the actual notes or other obligations in the bank's portfolio and proves the totals against the bank's records. He then checks all collateral to determine its physical existence and negotiability, and examines all documents pertaining to loans secured by real estate or other property that can not be physically held in the bank. In connection with certain types of loans the validity of the pledge of collateral and the condition of the loan can be determined only after the consideration of a number of matters. For instance, a real-estate mortgage and accompanying documents must be examined to determine whether evidence is in file that the borrower's title to the property mortgaged is clear, whether the mortgage has been properly recorded and constitutes a valid lien against the property, whether taxes have been paid, and whether sufficient insurance is in force and properly assigned to protect the interest of the bank.

Because of the many limitations upon the making of loans it is necessary to make a number of groupings of the items in the loan portfolio. Therefore, it is customary for the examiner to place perti-

nent data with respect to each loan on a separate card or form that can be arranged and rearranged in different groups to obtain any desired breakdown of aggregate loans. By means of this technique he can readily determine whether a bank has violated legal limitations upon the amount of loans of any particular kind or origin. All loans to one borrower, for instance, can be assembled in order to determine whether the total exceeds the amount permitted by law. The determination of the total amount lent directly and indirectly to each borrower is also necessary in the process of appraisal of assets in considering the soundness of the credit extended.

A State bank is subject to the laws of the State from which it receives its charter with respect to making loans, and a national bank to the applicable Federal statutes. State member banks and insured State banks become subject to certain Federal laws and regulations. Some Federal regulations, such as that with reference to loans for the purpose of purchasing and carrying stocks registered on a national securities exchange, are applicable to all banks.

The following is a list of the Federal limitations upon loans, presented in three groups as a matter of convenience:

1. Prohibited Loans and Prohibited Practices in Connection with Loans

New loans made while the bank's reserves are deficient. Applicable to all member banks.

Loans on, or purchase of, own stock. Applicable to all member banks.

Loans to bank examiners. Applicable to all member banks and all insured nonmember banks.

Loans to, or purchase and sale of securities of, defaulting foreign governments. Applicable to all banks.

Loan of trust funds to a director, officer, or employee. Applicable to national banks.

Making security loans for others. Applicable to all member banks.

Accepting commissions and fees for procuring loans from a member bank. Applicable to any officer, director, employee, or attorney of a member bank.

Accepting commissions and fees for procuring loans from a Federal Reserve Bank. Applicable to any person.

Borrowing by brokers or dealers on registered securities from nonmember banks, unless they have filed an agreement to comply with certain regulations.

2. Classes of Loans Restricted as to Aggregate Amount

General limitation upon the use of credit for speculative purposes or any purpose inconsistent with the maintenance of sound credit conditions. Applicable to all member banks.

Loans on stock or bond collateral. Applicable to all member banks.

Loans on stock of corporation holding bank premises. Applicable to all member banks.

Loans to affiliates or on their obligations. Applicable to all member banks.

Loans on real estate. Applicable to national banks.

Loans for building construction. Applicable to national banks.

3. Loans to One Borrower Restricted in Amount

Loans to any one person, firm, or corporation. Federal and all State laws contain such limitations. A Federal Reserve Bank may not rediscount for a national bank that part of a line of credit that is in excess of Federal limitations nor any part of an excess line for a State member bank.

Loans on stock or bond collateral. Applicable to all member banks.

Loans to corporation holding bank premises. Applicable to all member banks.

Loans by a bank to its affiliate or on the affiliate's obligations. Applicable to all member banks.

Loans on real estate. Applicable to national banks.

Industrial (or 13b) loans. Applicable to all banks.

Loans or extensions of credit to executive officers or to partnerships in which one or more executive officers have a majority interest. Applicable to all member banks.

The foregoing list is incomplete since restrictions contained in the State laws are not listed. Also, it should be noted that it does not contain the restrictions imposed upon the extension of credit through bankers acceptances, repurchase agreements, investment in securities, etc. It will serve, however, to illustrate some of the detail involved in the procedure of the examiner before he undertakes the appraisal of loans and other assets.

Appraisal of Assets. As in the process of verification of assets and the process of determining compliance with legal restrictions, the procedure of the examiner in appraising assets is complex. The process of appraisal is largely an exercise of judgment after consideration of all pertinent information available. On the basis of credit data in the files of the bank and information secured from officers and directors or from any other available source, including the history of the obligor's relations with the bank and, perhaps, other institutions, the examiner must form his estimate of the soundness and value of credits extended and investments made by the bank.

In general, the examiner applies the same criteria in appraising loans and investments as those applied by a careful bank manager in making loans and investments. His appraisal is made in the light of current conditions, however, and in view of future probabilities then apparent rather than on the basis of conditions that may have been existing at the time the loan or investment was made. Market quotations facilitate the appraisal of securities and the determination of the sufficiency of collateral in the form of stocks and bonds or commodities. Reliable independent appraisals may be available with respect to real property owned or pledged. In connection with unsecured credits and the appraisal of many items with respect to which no market quotations or acceptable independent appraisals are available, the examiner must apply his experience and judgment to the information available and must include consideration of applicable facts regarding local and general economic conditions in reaching his determination.

Having reached his conclusions with respect to the appraisal of assets, the examiner classifies them in accordance with the uniform agreement previously discussed.

Appraisal of Management. An examiner's procedure in appraising the quality of bank management depends upon so many elements that it is not susceptible of exact description. The condition of the bank, as revealed by the techniques already described, is perhaps the most tangible evidence of the character of management. Speculative tendencies, lack of credit judgment, poor collection policy, and other managerial defects soon affect assets and thus make an appearance in a bank's records. Ability or inability to take advantage of suggested changes and to correct former errors or weaknesses often becomes apparent in the interim between examinations and serves to guide the examiner in his appraisal of the wisdom and discernment of a bank's officials. In addition to these more or less tangible evidences, in any given case the intangible factors bearing upon the situation may be legion.

Preparation of Reports of Examination. The effectiveness of bank examination is dependent to a considerable extent on the accuracy and clarity of the examiner's report to the supervisory authorities. As previously stated, recommendations for corrective

action addressed to banks or disciplinary action taken against them usually emanate from the district or central supervisory office. Unless the examiner reports fully and clearly upon the conditions he finds in a particular bank, the central office may not have sufficient information to justify the exercise of supervisory discretion. In preparing a report of examination, therefore, the examiner is careful to give all the facts pertaining to the condition of a bank as well as his appraisal of these facts. Since a copy of his report is sent to the managers of the bank in question, his ability to present facts and appraisals clearly may greatly influence the future policy of management.

SUMMARY

Bank examination is the fact-finding function of the supervisory authorities provided for in State and Federal banking laws. It is conducted in accordance with the broad public policies expressed through legislation as defined and implemented by rules and regulations prescribed by the supervisory authorities. It involves, also, the exercise of judgment in the appraisal of assets and management. The field examiner, through reports based upon detailed analysis and appraisal of the condition of individual banks, furnishes the factual material upon which the central supervisory office bases its decisions concerning the need for corrective action in particular instances. Continuous study of reports for many banks in turn enables the central authority to make necessary changes in rules and regulations and sometimes to recommend changes in the broad policy embodied in legislation.

The purpose of bank examination is to safeguard the sound operation of individual banks and thus to strengthen the banking system as a whole. Within its limited sphere, examination has furthered this objective. It is recognized, however, that many of the factors bearing upon the condition of the banking system are not susceptible to control through examination. Acute and sustained economic depression, for instance, impairs the condition of banks by its inroads upon other branches of economic activity. In such times concerted action on many fronts is necessary to remove the fundamental causes.

PUBLIC NATURE OF THE RESERVE BANKS

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PUBLIC NATURE OF THE RESERVE BANKS

The Federal Reserve Banks are the operating end of the Federal Reserve System, which is charged by Congress with important responsibilities for national monetary and credit conditions. The operations of these Banks are guided by credit policies formulated principally by a governmental body in accordance with public policies stated in the Federal Reserve Act and developed by experience over a quarter of a century. The public interest and not private gain is the purpose of operation. Although the Reserve Banks pay legally prescribed dividends on their capital stock, the making of profits is not the purpose of their existence nor the basis for determining the character of their operations. Unlike commercial banks, they are not primarily business undertakings.

Important structural and functional differences between the Federal Reserve Banks and commercial banks are largely the result of the public nature of the Reserve Banks. The following pages indicate the principal differences and the ways in which the Reserve Banks are especially adapted to the furtherance of public policies. Descriptions of the operations of the Reserve Banks, including the public functions they perform for the Federal Government, and of the policies pursued by the Federal Reserve System are presented in other papers.

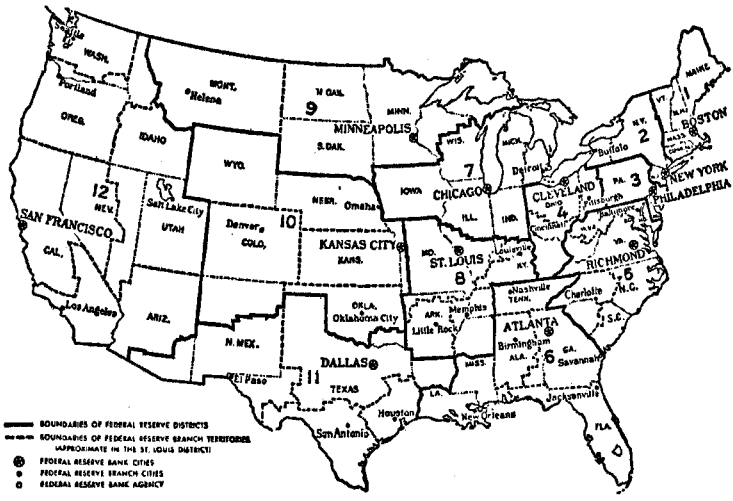
ORIGIN AND PURPOSE

The Reserve Banks were created by Congress, and their number and location were determined by public authorities. Unlike commercial banks, they can not be organized by private individuals and they can not be dissolved without action by Congress. The Federal Reserve Act provided for the establishment of no less than eight and no more than twelve Reserve Banks, leaving final decision as to the exact number within these limits to the Federal Reserve Board, the members of which are appointed by the President with the advice

and consent of the Senate.[1] After the number was once determined as twelve it could not be changed by the Board.

In furtherance of the purpose that all parts of the United States should have convenient access to the Reserve System, Congress specified that the Reserve Banks should be located in different sections of the country. It appointed an official committee to select the cities in which the Banks should be established, and to determine the areas or districts which each should serve, "with due regard for the convenience and customary course of business" but not neces-

LOCATION OF THE FEDERAL RESERVE BANKS AND THEIR BRANCHES



sarily with reference to State lines Provision was made in the Federal Reserve Act for the establishment or discontinuance of branches of the individual Reserve Banks, but only with the approval of the Board of Governors. Thus private enterprise was given no choice in the creation of the Reserve Banks and their branches or in determining their number and location.

Twelve Reserve Banks, twenty-four branches, and one agency have been established in twelve trade areas in the United States. The location of the Banks and branches, together with the boundaries

[1] Since the Banking Act of 1935 officially designated the Board of Governors of the Federal Reserve System.

of the Federal Reserve districts and branch areas they serve, is shown in the accompanying map. These Banks deal with member banks within their respective districts rather than with the general public. In doing so they serve the nation by furnishing an elastic currency, affording means of rediscounting commercial paper, and establishing a more effective supervision of banking in the United States, thus carrying out purposes of the Federal Reserve Act specifically named by Congress in the preamble. All of these purposes, together with the establishment of the Reserve Banks, are closely related to the basic purpose of Congress in establishing the Federal Reserve System as a whole.

As stated in the Federal Reserve Act, the guiding principle of all Federal Reserve policies and operations is "the accommodation of commerce and business with due regard to general credit conditions." The content of this principle has been broadened in the light of experience to mean that the powers of the Reserve System shall be used in such a way as to contribute to the continuous employment of the nation's productive resources and to diminish disturbing fluctuations in the volume of business. Operating in accordance with this general policy, the Federal Reserve Banks are primarily concerned with serving the public interest and not with making profits. Commercial banks also serve the public, but they do so as business undertakings organized and operated primarily for the purpose of deriving profits from their activities.

OWNERSHIP AND CONTROL

Ownership of the stock of the Federal Reserve Banks is private, but it differs fundamentally from the usual type of stock ownership. It is subject to special Congressional regulations and requirements formulated to preserve the public nature of the Banks by limiting the owners' control over management and participation in earnings.

Ownership. Ownership of the stock of the Federal Reserve Banks is restricted by law to banks that join the Federal Reserve System. As a condition of membership prescribed by Congress, a bank must subscribe to the stock of the Federal Reserve Bank of its district in an amount equal to 6 per cent of its own paid-up capital and surplus and must maintain this percentage as long as it continues to be a

member bank. One half of the subscribed amount must be fully paid in and the remainder is subject to call by the Board of Governors.

A member bank can not vary the amount of its holdings of Reserve Bank stock except as the amount of its own capital and surplus undergoes change. It can not purchase additional stock in order to increase its earnings or its influence over the management of the Reserve Bank; it can not reduce its required holdings in order to release funds for more profitable use; it can not hypothecate the stock in order to borrow. It can and must vary the amount of its investment in the stock of its Reserve Bank only with changes in the amount of its own capital and surplus. From the point of view of the member bank, ownership of stock in a Federal Reserve Bank is more in the nature of a compulsory participation in a public enterprise than an investment acquired for income purposes.

National banks are the principal owners of Federal Reserve Bank stock. Membership in the Reserve System is compulsory for them and they constitute over 80 per cent of all member banks. State banks, for which membership is optional, own a relatively small part of the aggregate amount of Federal Reserve Bank stock. As a part of the process of becoming members, they acquire the stock and subject themselves to many legal requirements and to general supervision by the Board of Governors.

In commercial banks, the board of directors on behalf of the owners determines dividend rates from year to year. In contrast to this, holders of stock of the Federal Reserve Banks have no voice in determining the rate of return they receive. Dividends are specifically fixed by law. The Federal Reserve Act specifies that the yield to stockholders of the Federal Reserve Banks shall be at the rate of 6 per cent per annum on paid-in stock and shall be cumulative. Congress may change the rate at any time. Thus the yield member banks obtain on their stock in the Federal Reserve Banks depends upon Congressional action rather than managerial decision regarding the distribution of profits.

Control. Government influence over the operations of the Federal Reserve Banks extends far beyond control of dividends. It affects every policy decision that might react upon national credit conditions and, through its effect upon the choice of officers and directors,

is an important factor in local management. This also differentiates the Reserve Banks from commercial banks.

The most important differences between the control of Federal Reserve Banks and commercial banks pertain to the way in which credit policies are determined. In cognizance of the public character of the Reserve Banks, Congress provided that policy decisions affecting the national economy should be made by national bodies and not by Bank directors or officers. The local managements of the twelve Federal Reserve Banks participate through representation in some of these decisions, but the machinery is such as to insure decisions made with refcrence to the interests of the country as a whole and not of any particular region or separate element of the population.

An important matter of policy on which the individual Reserve Banks can take the initiative is the establishment of the discount rate to be charged to borrowing member banks. The Reserve Banks' decisions on discount rates, however, are subject to "review and determination" by the Board of Governors. This language has been construed by the Attorney General to mean that the Board not only must pass on rates proposed by the Reserve Banks before they become effective, but also has power to establish rates on its own initiative.

The Reserve Banks are the legal depositaries of the reserve accounts of member banks. The amount of required reserves, however, is prescribed by law, with authority in the Board of Governors to change requirements within certain limits. Responsibility for supervising the policy of the Federal Reserve Banks in their international financial transactions is vested in the Board of Governors. In purchasing or selling securities or other paper in the open market, the Federal Reserve Banks act pursuant to decisions made by the Federal Open Market Committee, a national body, which consists of the seven members of the Board of Governors and five representatives of the Reserve Banks elected regionally.

With respect to business relationships with member banks within the twelve Reserve districts, the Reserve Banks have a maximum degree of autonomy. They determine to what member banks credit accommodations and other services shall be extended. When local

matters are of a nature that might directly or indirectly affect the credit structure of the nation—the payment of interest on time deposits and determination of the amount of loans a member bank may make on a given volume of security, for instance—the Reserve Banks act within limits set by the Board of Governors.[2] They are also guided by direct mandates from Congress. The Federal Reserve Act requires that "each Federal Reserve Bank shall keep itself informed of the general character and amount of the loans and investments of its member banks with a view to ascertaining whether undue use is being made of bank credit for the speculative carrying of or trading in securities, real estate, or commodities, or for any other purpose inconsistent with the maintenance of sound credit conditions; and, in determining whether to grant or refuse advances, rediscounts or other credit accommodations, the Federal Reserve Bank shall give consideration to such information."

The Government also has a voice in the selection of the officers and directors of the Reserve Banks. Each Federal Reserve Bank is required by law to have nine directors, six elected by the stock-holding member banks of the district in which the Reserve Bank is located, and three appointed by the Board of Governors. The Chairman and Deputy Chairman of the Board of Directors of each Reserve Bank are designated by the Board of Governors from its appointees on the directorate. Of the six directors elected by the member banks, the law requires that three shall be representative of member banks and three shall be engaged in commerce, agriculture, or some business pursuit other than banking within the district. Also, two of the six are to be elected by small banks; two by medium size banks; and two by large banks. The Board of Governors has power to remove any or all of the directors for cause.

The two chief executive officers of each Bank, the President and First Vice President, are appointed by the directors for five-year periods, subject to approval by the Board of Governors. All officers and employees of the Banks are appointed by the local boards of directors but are subject to removal by the Board of Governors

[2] For more extensive treatment of credit policy, see the last two papers in this volume.

for cause, and all salaries and expenses are subject to review by the Board.

In actual practice the local contacts of the Reserve Banks with member banks and with the business men of the Federal Reserve districts, through the directors, officers, and otherwise, are of great value to the Federal Reserve System. They are a source of its fundamental strength. In day-to-day affairs the Reserve Banks are a part of the local community. They have an opportunity to exercise financial leadership in their districts. They are also in a position to keep the Board in Washington informed of local conditions and to explain national policies to bankers and business men of the districts. Autonomy in local matters, under public supervision, and determination of national policies by public bodies, after consultation with local representatives, are the essential characteristics of the Federal Reserve System.

SUPERVISION

Unlike commercial banks, the Federal Reserve Banks have power to examine other banks. They examine State member banks within their respective districts and banks applying for membership in the Reserve System. In doing so they proceed in accordance with policies formulated by the Board of Governors, one of the authorities charged with responsibility for the supervision of member banks. The Reserve Banks are in turn examined by the Board of Governors, which exercises full supervisory authority over them.[3]

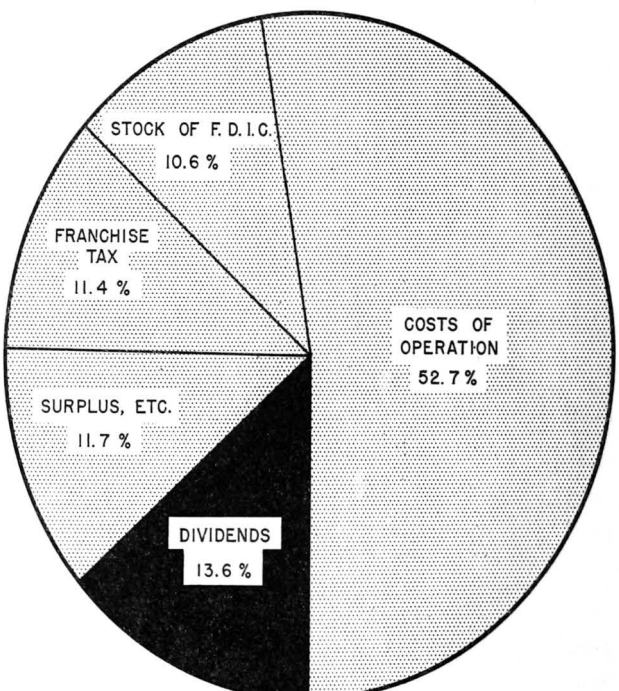
EARNINGS AND THEIR DISTRIBUTION

The earnings and expenses of the Reserve Banks are determined by considerations and processes different from those that prevail in commercial banks. Earnings are an incidental result of policy decisions made by the Federal Reserve authorities with the aim of influencing the volume and cost of the nation's supply of money; they are not the result of policies adopted by representatives of the stockholders with the aim of producing profits. Expenses are subject to regulation and scrutiny by the Board of Governors and arise

[3] For further information, see "Supervision of the Commercial Banking System" and "Policy and Procedure in Bank Examination."

mainly from services performed in pursuance of the public purposes for which the Reserve Banks were established; they are not governed by decisions made primarily for the purpose of reducing operating costs and thus increasing profits for stockholders.

RESERVE BANK DIVIDENDS IN RELATION TO GROSS EARNINGS 1914–1939[a]



[a] For data, see Table 27, p. 445.

Until July 1933, the law required that the earnings of the Reserve Banks, after deduction of expenses and the annual 6 per cent cumulative dividend on paid-in capital stock, should be allocated in fixed proportions to surplus and to the franchise tax paid to the United States Government. At that time Congress appropriated 140 million dollars of the accumulated surplus for contribution to the capital

stock of the Federal Deposit Insurance Corporation, abolished the franchise tax, and provided that in the future the net earnings of each Reserve Bank should be paid into its surplus. While the Reserve Banks continue in operation—and they can not suspend without Congressional action—they may draw upon surplus to absorb losses and to meet expenses and dividends when earnings are low. In case of liquidation the surplus becomes the property of the United States Government.

From their establishment in 1914 through June 1939 the Federal Reserve Banks earned about 1.3 billion dollars. Of this amount more than one-half was disbursed to meet expenses incurred in performing the public services prescribed by Congress. Of the other half, one-fourth was paid as franchise tax to the Government, principally during 1920 and 1921 when the volume of discounts was large and discount rates high. The remainder was distributed in roughly equal parts in dividends to member banks, as a contribution to the stock of the Federal Deposit Insurance Corporation, and as additions to surplus.

In the aggregate, as shown by the accompanying chart, over twenty-five years only about one-eighth of the Reserve Banks' gross earnings has been paid to the stockholders. The remaining seven-eighths has been used directly or indirectly for a public purpose, or remains in a surplus that strengthens the position of the Reserve Banks while they are in operation and would pass to the United States Government in case of their dissolution.

ISSUANCE OF CURRENCY AND CREATION OF DEPOSITS

Supplying currency to the public and handling deposits are functions of the Reserve Banks as well as of commercial banks. In performing both, however, the Reserve Banks act as central banking institutions subject to the mandates of Congress and the policy decisions of governmental bodies. Their purpose is to carry out the basic principle of the Federal Reserve Act—that the volume of money available to commerce and industry shall be directly related to the needs of the economy as a whole and the general credit conditions of the country. In the accomplishment of this purpose, the Reserve Banks can draw upon a power no commercial bank can

exercise. This is the power to create money in the form of either currency or bank deposits.

Issuance of Currency. One of the purposes of Congress in creating the Federal Reserve System was to provide an elastic currency for the nation—that is, a currency that would expand and contract in volume in response to changing economic needs. The reason for doing so was to avoid a shortage of money that might unduly restrict business activity or an oversupply that might encourage speculative expansion. In order to accomplish this purpose, Congress authorized the Federal Reserve System, through the Reserve Banks, to issue and retire Federal Reserve notes. These notes, backed by a 40 per cent gold reserve, can be issued in exchange for certain prescribed types of assets. The Federal Reserve Banks are the only banking institutions in the United States that can issue currency. Commercial banks can release existing currency for circulation but they can not create a new supply. The way in which Federal Reserve notes are issued and retired in response to the needs of the general economy has been explained elsewhere.[4]

Creation of Deposits. The other money creating power of the Federal Reserve Banks is the power to create deposits. As the currency issuing function results in elasticity of the currency supply, the deposit creating function results in the elasticity of bank deposits. By granting the power to create deposits to a central banking system, Congress provided for the expansion and contraction in response to the public needs of the form of money that is in much more common use than currency. Checks drawn upon deposit accounts comprise the bulk of all payments in a modern economy.

Deposits can be created by commercial banks as well as by Federal Reserve Banks, but the deposit creating power of the Reserve Banks differs from that of commercial banks in three vital respects. (1) A commercial bank, when it pays for a loan or an investment by deposit credit on its books, can do so only if it has or can borrow funds with which to meet a withdrawal of the deposit so

[4] "Money System of United States," pp. 308–12. As this paper indicates, the United States Treasury is also empowered to issue currency, which consists of silver certificates, United States notes, and coins. Federal Reserve notes, however, are the chief form of currency now in use in the United States.

created. A Federal Reserve Bank is not so limited. (2) To meet a probable withdrawal of deposits a commercial bank must have funds, usually in the form of balances with a Federal Reserve Bank or with other banks, while a Federal Reserve Bank can meet a withdrawal of deposits by paying out Federal Reserve notes—which can be issued for the purpose. In other words, a Federal Reserve Bank can create the funds with which to meet a deposit withdrawal, while a commercial bank can not. (3) The deposits of the Reserve Banks, which in large part consist of the legal reserves of member banks, can serve as the basis of an expansion of several times their volume in deposits in the banking system as a whole. No such multiple expansion can occur on the basis of deposits in a commercial bank.

The second of these differences is self-explanatory and the third is explained elsewhere in this volume.[5] The difference in regard to withdrawal of deposits, however, requires a somewhat fuller discussion at this point. Deposits in a commercial bank are subject to withdrawal on little or no notice and the bank must be prepared to pay out cash in the event of a withdrawal. It has no way of knowing whether checks drawn by its depositors will return in the process of interbank clearing, or whether they will become deposits in another bank and necessitate an outlay of cash. For this reason a commercial bank must never expand deposits beyond the point where it can cover possible cash withdrawals with funds already in its possession or available by borrowing. Deposits are liabilities which a commercial bank must be prepared to meet in cash at any time. Although experience has shown that as a rule there are some compensations in interbank movement of funds, deposits being gained as well as lost in the process, there is always the possibility that the net result will necessitate the payment of large amounts of cash or, more likely, the transfer to other banks of reserves at the Federal Reserve Banks.

If there were only one commercial bank in the nation and it held all existing deposits, the situation would be different. The bank would know that when checks were drawn against its deposits in

[5] *Ibid.*, pp. 312-18.

favor of other depositors there would be no occasion for parting with cash. The checks would necessarily be redeposited with it and would merely result in a transfer of funds from one depositor in the bank to another. There would be no change in the total amount of deposits held by the bank.

In this respect the Federal Reserve Banks are in the position a commercial bank would occupy if it held all deposits in the nation. The Federal Reserve Act requires that each member bank deposit as reserves with the Federal Reserve Bank of its district a prescribed percentage of its own deposits. These Reserve balances comprise the bulk of all deposits held by the Reserve Bank, which is required by law to carry a 35 per cent reserve against them. Since member banks customarily deposit excess as well as required reserves with the Reserve Bank, and nonmember banks deposit their reserves with member banks, the Reserve Bank holds the ultimate reserves of all banks in the district. Within its district, it is in the position of a commercial bank that holds all existing deposits.

If reserves move from one Reserve district to another, which occurs constantly but in much smaller amount than movements within a district, a Reserve Bank is affected in the same way as commercial banks are affected by interbank movement of funds. But resulting losses to one Reserve Bank appear as gains to another and, since all the Reserve Banks operate as one System, the only adjustment that might become necessary is a reallocation of assets between the Banks. The position of the twelve Banks as a whole is not affected.

Member banks are required by law to keep a certain percentage of their deposits as required reserves, which are in the form of deposits at the Federal Reserve Banks, and they have no incentive to withdraw their excess reserves unless they have an opportunity to make a profitable loan or investment. If they do so, the proceeds of the loan or investment become bank deposits somewhere else in the banking system and a corresponding amount of reserves is transferred to the bank that receives them. The total amount of deposits in the Reserve Banks does not decline. A transfer of title to deposits on the books of the Reserve Banks is all that occurs. Consequently, the Federal Reserve Banks can not only create deposits but can

keep them after they have been created. This, together with the authority to issue Federal Reserve notes, constitutes the Federal Reserve Banks' power to create money.

SOURCES OF LENDING POWER

The lending power of the Reserve Banks rests upon this ability to create money. It does not depend upon money already in the possession of the Banks or on the possibility of borrowing. This is a fundamental difference between the source of lending power of Reserve Banks and commercial banks. Customers of commercial banks do not borrow money in order to keep it idle on deposit in a bank. They borrow because they need funds for business or personal disbursements, which means that they usually withdraw the proceeds shortly after consummation of the loan.[6] Since a commercial bank is only one of several thousand similar institutions and deposits constantly flow from one to another in the usual course of business, it must be prepared to part with deposits created by loans to customers.

The typical borrower from the Reserve Banks is a member bank that needs to increase its reserves.[7] It is not likely, as is a borrower from a commercial bank, to withdraw the resulting deposit. More important, if it does so by check, the funds will nevertheless remain with the Reserve Banks since they will reappear as the deposits of another member bank; and if it does so in cash, the Federal Reserve Bank can issue its own liabilities, Federal Reserve notes, to meet the withdrawal.

The power to issue currency supplements deposit creation in the lending activities of the Reserve Banks. This may be illustrated by an extreme example. If the member banks should withdraw all of their deposits from the Reserve Banks (which they could not do under the law), the lending power of the Reserve Banks would decline only fractionally. They could pay the member banks in

[6] Some commercial banks make a practice of requiring borrowers to leave a part of the proceeds of a loan on deposit as long as the loan is outstanding. The principal effect of this practice is indirectly to increase the cost of the available proceeds of the loan.

[7] The Reserve Banks can also extend credit by open-market operations determined by the Federal Open Market Committee.

Federal Reserve notes issued for the purpose, for the notes are legal tender and would be readily acceptable by the member banks. The Reserve Banks' liability on deposits would be replaced by an equal amount of liability on Federal Reserve notes. Since reserves required against notes are 40 per cent, as compared with 35 per cent for deposits, the Reserve Banks' lending power would be diminished by the additional 5 per cent, and that is all. Similarly, if all Federal Reserve notes were returned to the Reserve Banks in exchange for deposit credit, the Reserve Banks' lending power would increase only to the extent of the reduction in their reserve requirements from 40 to 35 per cent.

There is only one way, other than through the process of extending credit itself, in which the power of the Reserve Banks to extend additional credit could be seriously diminished. That is the cashing in gold of deposits or Federal Reserve notes. Under ordinary circumstances a Reserve Bank is not likely to have enough reserves to pay all its deposits or redeem all its notes in gold without liquidating some of its earning assets. Since the essence of a Reserve Bank's lending power is that it is required to hold only 40 per cent of gold reserves against notes and 35 per cent of gold or lawful money against deposits, it is inevitable that, except under very unusual conditions such as prevail at present, a withdrawal of all deposits or redemption of all notes in gold would seriously reduce the lending power of the Reserve Banks. Under existing law gold can not be withdrawn except under special license for export purposes, and there is no prospect of any substantial reduction in the Reserve Banks' lending power from this cause. If, however, it should threaten to become a limiting factor at some future time and if this should occur at a time when the national economy would be adversely affected by a restriction of credit, the Board of Governors could exercise its power of suspending reserve requirements against both deposits and Federal Reserve notes. Thus even the reserve requirements imposed on the Reserve Banks need not be a limiting factor on their credit extension if such a restriction is contrary to the public interest.

As there is only one way to decrease a Reserve Bank's lending power there is only one way, other than by a reduction in their

own credit, to increase it; namely, by the acquisition of additional reserves, principally gold. In the ordinary course of events reserves come to the Reserve Banks through deposit by member banks or by the Treasury. Under existing law commercial banks must sell to the Treasury all gold received and the Treasury sooner or later places it to the credit of the Reserve Banks. In earlier days the Reserve Banks could, if they wished, take the initiative in acquiring new reserves. They could buy gold in the market and pay for it in deposit credit or in Federal Reserve notes. In the former case 35 per cent and in the latter case 40 per cent of the reserves so obtained would be tied up as required reserves against the new deposits or notes, and 65 or 60 per cent, respectively, would be available as a basis for additional extension of credit. Thus the Reserve Banks had the power, on their own initiative, to acquire such reserves as they required for the extension of additional credit, and were not dependent for their reserves on the deposit with them of gold or other reserve cash.

SUMMARY

Fundamental differences in the purpose of their operations are reflected in the many ways in which Federal Reserve Banks differ from commercial banks. Public service rather than private profit is the reason for the existence of the Reserve Banks. It is expressed in the legislation that brought them into existence, in the manner of their management and control, and in the ends to which all their activities are directed.

The Reserve Banks are endowed with power to create money. It is from this power that they derive their ability to extend credit in the form of loans to member banks or of purchases in the open market. The funds for these operations originate in the power to create deposits, which are legal reserves of member banks, and to issue Federal Reserve notes, which are legal tender and universally acceptable currency. The deposits of the Federal Reserve Banks, furthermore, are high-power money, because they can become the basis of a multiple expansion of bank credit. The powers of the Federal Reserve Banks are essential to and derived from the central banking functions for which Congress has established them. Similar

functions are performed on the basis of law or custom by central banks in many important countries of the world, all of which have found them to be an indispensable piece of financial machinery in a modern economy.

Congress made the "accommodation of commerce and business with due regard to general credit conditions" the guiding principle of Federal Reserve policy and action. In bestowing unusual powers upon the System it safeguarded their use. Decisions of the Federal Reserve Banks, the stock of which is owned by member banks, are confined to local matters and are subject to the law and to supervision and regulation by the Board of Governors. The formulation and execution of all policies and operations touching the national interest are placed in the hands of national bodies and are beyond the control of private or sectional interests.

OPERATIONS OF THE RESERVE BANKS

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Chief

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OPERATIONS OF THE RESERVE BANKS

In November 1914 twelve Federal Reserve Banks were established in important cities in different sections of the country. These Banks, together with their twenty-four branches and one agency, serve in a triple capacity. They are the principal medium through which the credit policies and general supervisory powers of the Federal Reserve authorities are carried out; they perform for member banks many of the services which commercial banks perform for the public; and they are fiscal agents, depositaries, and custodians for the United States Treasury and other Government units.

The operations of the Federal Reserve Banks might be discussed from several angles. Among their most important functions is participation with other Federal Reserve authorities in implementing Federal Reserve credit policy and in supervising banks.[1] These operations, however, require much less time and personnel than do other functions of the Federal Reserve Banks. This paper deals primarily with these other functions, which occupy the major part of the Reserve Banks' time from day to day.

COLLECTION OF CHECKS AND DRAFTS

A nation-wide system for the collection of checks and other cash items is conducted by the Federal Reserve Banks for the benefit of member banks and nonmember clearing banks.[2] As a clearing and collection medium the Federal Reserve Banks offer commercial banks a service for collecting out-of-town checks payable in any part of the United States comparable to that furnished by clearing-house associations for checks payable locally. Federal Reserve Banks do

[1] For treatment of these subjects in their proper settings, see the following papers in this volume: "Work of the Board of Governors," "Supervision of the Commercial Banking System," "System Organization: Determination of Credit Policy," and "Instruments of Federal Reserve Policy."

[2] A nonmember clearing bank is one that maintains a balance with a Federal Reserve Bank sufficient to offset items in transit held for its account by the Federal Reserve Bank.

not ordinarily handle local checks since banks can exchange them daily, usually through a clearing-house association. In most cities having a Federal Reserve Bank or branch, however, settlement for clearing-house balances is made on the books of the Federal Reserve Bank. In some cases the clearings are actually conducted by the Federal Reserve Bank or branch, or the clearing house has quarters in the Federal Reserve building.

Before the Federal Reserve Banks were established the collection of out-of-town checks frequently involved circuitous routing and hence delay in collection. The following illustration indicates the direct and economical manner in which the Reserve Banks now perform this function:

A distributor in Duluth, Minnesota, purchases some mechanical equipment from a manufacturer in Trenton, New Jersey, and sends a check in payment drawn on his bank in Duluth. The manufacturer deposits this check in his bank in Trenton, which sends it, together with other out-of-town checks received that day, to the Federal Reserve Bank of Philadelphia. The Federal Reserve Bank of Philadelphia forwards the check, together with others payable in Minnesota, direct to the Federal Reserve Bank of Minneapolis. If the Trenton bank receives a large number of checks drawn on banks in the Minneapolis Federal Reserve District, it may shorten the collection time still further by sending them direct to the Minneapolis Reserve Bank, supplying the Philadelphia Reserve Bank with the details of the items sent.[3] Upon receipt, the Minneapolis Reserve Bank sends the check to the bank in Duluth on which drawn. The bank in Duluth sends a draft on its reserve account to the Federal Reserve Bank in Minneapolis in payment for this item and others received that day from the Reserve Bank. The Federal Reserve Bank of Minneapolis credits the Federal Reserve Bank of Philadelphia by wire through the Interdistrict Settlement Fund maintained by the Board of Governors and sends a mail advice covering the details of the credit to the Philadelphia Reserve Bank.

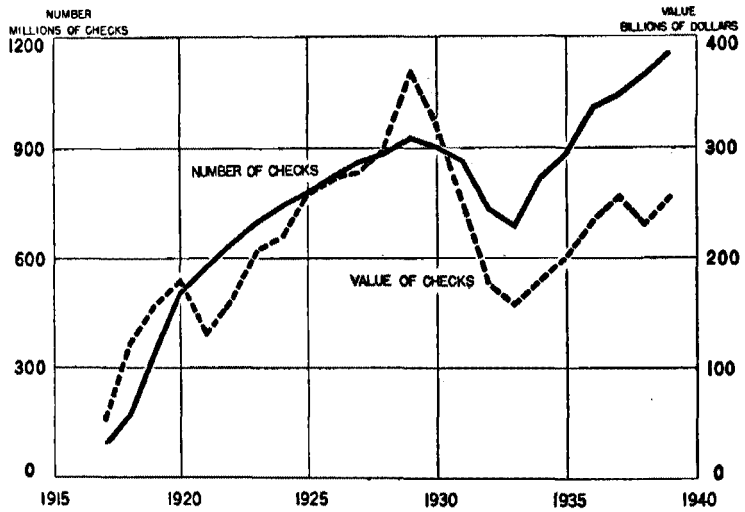
Upon receipt of the check the Federal Reserve Bank of Philadelphia gives the Trenton bank credit in a deferred deposit account. Transfers from the deferred account to the bank's reserve account are made in accordance with a published time schedule.

Member banks are not compelled to use the Federal Reserve collection facilities. They can, if they choose, clear their out-of-town

[3] Banks following this practice are known as direct sending banks. When a member bank has a sufficient volume of cash items payable in other Federal Reserve districts to justify direct routing, the Reserve Bank may decline to accept such items for collection unless they are routed direct to the Federal Reserve Banks and branches of such other Federal Reserve districts.

checks through correspondents or in any other way they consider advantageous, using the Federal Reserve collection system only occasionally or not at all. As a matter of practice about half of the member banks regularly send their out-of-town items to the Reserve Banks for collection. Many member banks, particularly those not situated in Federal Reserve Bank or branch cities, find it more convenient to clear cash items through a city correspondent. One reason is that they can send all their out-of-town checks to a city correspondent and thus avoid sorting out checks drawn on banks that

CHECKS HANDLED BY FEDERAL RESERVE BANKS[a]



[a] For data, see Table 23, p. 438.

will not remit at par, which the Federal Reserve Banks can not handle.[4] City correspondents, however, use the Federal Reserve collection system to collect out-of-town checks drawn on par banks received from their country correspondents.

The Federal Reserve Banks give immediate credit, or credit within one or two days after receipt, for most checks received from member banks and nonmember clearing banks for collection. Since September 1, 1939, the maximum period of credit deferment for a

[4] For a discussion of the par clearance problem, see the paper "Deterrents to Membership in the Reserve System."

check payable anywhere in the United States has been three days. The time actually required to collect checks often exceeds the period during which credit is deferred by the Reserve Banks under their time schedules, and as a result the Reserve Banks are constantly giving member banks credit for a substantial amount of cash items (approximately 50 million dollars daily on the average) in advance of actual collection.

The number and amount of checks handled by the Federal Reserve Banks from 1917 through 1939 are shown in the chart on page 251. During 1939 the total was over 1.1 billion checks amounting to about 256 billion dollars. One-fifth of the personnel of the Reserve Banks, or about 2,300 employees, were engaged in collecting these checks and other cash items.

COLLECTION OF MATURING NOTES, BILLS, AND COUPONS

In addition to providing for the collection of checks and drafts, the Federal Reserve Act authorizes Federal Reserve Banks to receive from member banks and nonmember clearing banks maturing notes and bills for collection. These "noncash" items include maturing notes, bills, securities, coupons, etc. (other than obligations of the United States and its agencies that are redeemed by Federal Reserve Banks as fiscal agents).

The Federal Reserve Banks either present noncash items for payment direct to the person, firm, or corporation on which they are drawn, or forward them for collection through other banking institutions. If payable outside the district of the Federal Reserve Bank receiving them for collection, they are ordinarily forwarded to the Reserve Bank or branch in the appropriate locality. Member banks having a substantial volume of noncash collections are encouraged to route them direct to the Federal Reserve Banks and branches of the districts in which they are payable.

Except for security collections in a few cities, the Federal Reserve Banks make no charge for their own services in collecting noncash items.[5] They only receive reimbursement for telephone and telegraph

[5] In order to discourage the use of their collection facilities for the presentation of "dunning drafts," however, the Federal Reserve Banks charge 15 cents on certain collection items returned unpaid and unprotested.

costs and for charges incurred in forwarding valuable items by registered insured mail. Consequently an item payable in a city where there is a Federal Reserve Bank or branch is ordinarily collected at par. Any bank selected by a Federal Reserve Bank as its agent for collecting items payable outside Federal Reserve Bank and branch cities may, however, make a charge for the service rendered. When such a charge is made the Federal Reserve Bank remits for the net proceeds.

During the year 1939 the Federal Reserve Banks handled 6.2 million noncash collection items having an aggregate value of 5.4 billion dollars. About 400 employees were engaged on this work.

CURRENCY OPERATIONS

Through member and nonmember banks the Federal Reserve Banks supply the currency required by the public, maintaining at all times supplies of paper money and coin adequate to meet demands upon them. They are the medium through which Federal Reserve notes are issued, and all other kinds of United States money, paper and coin, are put into circulation. They are also the institutions through which currency no longer needed by the public is withdrawn from circulation. The amounts and kinds of currency in circulation, that is, outside the vaults of the Treasury and the Federal Reserve Banks, on December 31, 1939, were as follows (in millions of dollars):[6]

Federal Reserve notes	4,912
Silver certificates	1,554
United States notes	272
Silver dollars	45
Subsidiary silver coin	381
Minor coin	164
Treasury notes of 1890	1
Gold certificates	70
National bank notes	175
Federal Reserve Bank notes	24
Total	7,598

Gold certificates, national bank notes, Federal Reserve Bank notes,

[6] For the history of the various kinds of currency, see the paper "Currency System of United States."

and Treasury notes of 1890 are in process of retirement from circulation.

Member banks obtain currency from their Federal Reserve Banks and have it charged to their deposit (reserve) accounts with the Reserve Banks just as individual depositors at commercial banks obtain currency and have it charged to their deposit accounts. In Federal Reserve cities, member banks obtain currency over the counter at the Reserve Banks and branches; elsewhere they receive it by mail or express from their Reserve Bank or branch. To place all member banks on essentially the same footing in obtaining currency, shipping expenses are borne by the Federal Reserve Banks. Member banks return unfit and excess currency to their Federal Reserve Banks, which absorb the shipping charges.

Currency requirements of nonmember banks are met through correspondent member banks, which supply the currency or arrange for shipment from the Federal Reserve Banks direct to the nonmember banks. Shipping costs incurred by the Federal Reserve Banks in such cases are collected from the correspondent member banks. Nonmember banks deposit unfit and excess currency with their correspondent banks, or ship it direct to the Federal Reserve Banks either for the account of correspondent banks or in payment of checks sent to them by the Federal Reserve Banks for collection and remittance.

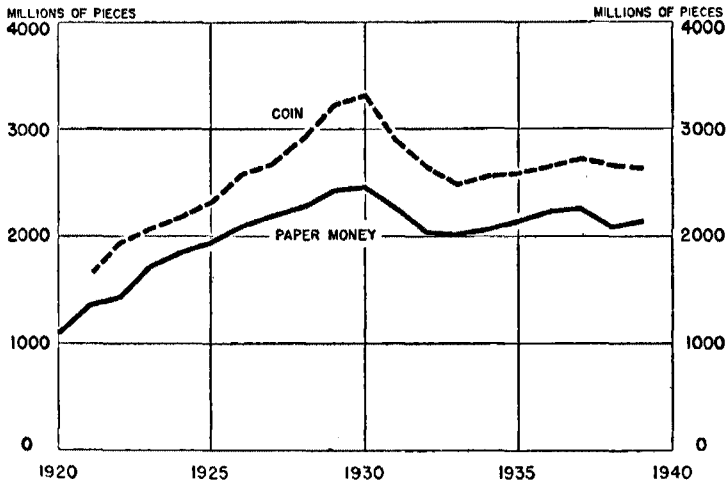
When currency is returned to a Reserve Bank from circulation it is counted and sorted as to classes and fitness for further circulation. The fit currency (except Federal Reserve notes of other Reserve Banks) is then paid out again, as occasion requires, along with new currency. Unfit paper money is cancelled and sent to Washington for destruction, and light-weight and mutilated coin is sent to a United States mint for melting and recoinage.

In accordance with provisions of the Federal Reserve Act, which prohibits (under penalty of a tax of 10 per cent) Federal Reserve Banks from paying out notes of other Federal Reserve Banks, Federal Reserve notes issued through one Federal Reserve Bank and received by another are promptly returned for credit to the issuing Bank; or if they are worn and unfit for further use, they are shipped to the United States Treasury to be retired. Notes returned to other Federal Reserve Banks or to the Treasury for their account are

charged to these Banks in the daily note settlement conducted by the Board of Governors through the Interdistrict Settlement Fund.[7]

In meeting requests for currency the Federal Reserve Banks pay out whatever kinds of paper money and coin they have on hand, depending upon their existing supplies and the denominations requested. Reserve stocks of silver certificates and United States notes are maintained by the United States Treasury at Washington, while reserve stocks of Federal Reserve notes are maintained by the Federal Reserve Agents (representatives of the Board of Governors at the Federal Reserve Banks) as well as by the Treasury. Reserve

CURRENCY RECEIVED AND COUNTED BY FEDERAL RESERVE BANKS[a]



[a] For data, see Table 23, p. 438.

stocks of coin are maintained at the various mints. When the Reserve Banks receive shipments of silver certificates, United States notes, or coin from Washington or a United States mint, they credit the amount to the Treasurer of the United States. When they obtain Federal Reserve notes from the Federal Reserve Agents they deposit with the Agents the required collateral, which may consist of eligible paper acquired either by discount or purchase, of gold certificates on

[7] For a discussion of the Interdistrict Settlement Fund, see the paper "Work of the Board of Governors."

hand and due from the United States Treasury, or (until June 30, 1943) of direct obligations of the United States. In recent years, the amount of gold certificates pledged with the Federal Reserve Agents as collateral has actually been in excess of the amount of Federal Reserve notes outstanding.

The cost of printing and shipping Federal Reserve notes, including insurance and postage, is paid by the Federal Reserve Banks. They also pay the cost of redemption of these notes by the Treasury Department. In recent years the combined total of these costs has averaged 1.7 million dollars a year. In addition, expenses incurred by the Reserve Banks in handling currency, including shipping costs to and from member banks, have amounted to approximately 4 million dollars a year.

The number of pieces of paper money and coin received and counted by the Federal Reserve Banks during the period 1920–1939 is shown in the chart on page 255. During the year 1939 the total was about 2.1 billion pieces of paper money having a face value of 9.3 billion dollars, and 2.6 billion coins having a face value of 277 million dollars. On the average, the Reserve Banks received and counted about 7 million pieces of paper money and about 8 million coins (approximately 51 tons) per day. These and other activities connected with currency operations required the services of over 1,000 employees.

DISCOUNT OPERATIONS

An important operation of the Federal Reserve Banks, though one which at the present time is small in volume and requires the time of a relatively small number of employees, is the making of loans and advances to member banks and others. Discounts for member banks have been made ever since the Reserve Banks began to operate in 1914, but loans to nonmember banks and commercial and industrial enterprises are a comparatively recent development.

Discounts for Member Banks. One of the chief reasons for the establishment of the Reserve System was to provide a means for rediscounting short-term agricultural, industrial, and commercial paper. Member banks rediscount their customers' notes with the Federal Reserve Banks or borrow on their own collateral notes for

the purpose of maintaining with the Federal Reserve Banks the required reserves against deposits. Reductions in a member bank's reserve balance normally result from withdrawals of currency by the member bank or from payments of checks drawn against it. Growth of a member bank's deposits increases the amount of reserves it is required to maintain and may necessitate borrowing from the Federal Reserve Bank.

Until the early 1930's, member banks had no appreciable amount of excess reserves, and rediscounting to meet seasonal and other demands was common. Since then member bank reserve balances have generally been far in excess of requirements, and relatively few member banks have needed to borrow from their Federal Reserve Bank. During 1920, when discount operations of the Federal Reserve Banks were at a peak, average daily holdings of discounted paper amounted to 2.5 billion dollars, while in 1939 such holdings amounted to only 5.1 million dollars.

A member bank requiring discount accommodation submits an application to its Federal Reserve Bank on an appropriate form tendering either eligible short-term commercial, industrial, or agricultural paper for rediscount, or its own promissory note secured by such eligible paper, by United States Government obligations, or by other satisfactory collateral. Paper of a member bank's customers offered for rediscount or as collateral for the member bank's own promissory note is examined by the Federal Reserve Bank to ascertain whether it is eligible and also whether it is acceptable from a credit standpoint. If the offering is found to be satisfactory and there is no policy reason for denying credit, the paper is discounted by the Reserve Bank at the established rate and the proceeds are credited to the member bank's reserve account. Member banks may obtain credit accommodation at the Federal Reserve Banks for varying periods, depending upon the class of paper offered for rediscount or as collateral to their own promissory notes.

In general, eligible commercial, industrial, and agricultural paper may be used to obtain accommodation for periods up to ninety days, either by rediscount or as security for an advance, except that agricultural paper may be rediscounted with maturities up to nine months. At the present time the discount rate on such paper is one

per cent at the Boston and New York Reserve Banks and 1.5 per cent at all other Reserve Banks. Advances secured by United States Government obligations may be made for periods up to ninety days. The discount rate on advances to member banks secured by Government obligations is one per cent at Boston, New York, Atlanta, Chicago, St. Louis, Kansas City, and Dallas, and 1.5 per cent at the other Reserve Banks.

At the time of the passage of the Federal Reserve Act, national banks were primarily commercial banks. Over two-thirds of their earning assets were in the form of short-term loans to commerce, industry, and agriculture. Since that time, and particularly in the late 1920's, the larger business enterprises have financed a considerable part of their needs through bond and stock issues or out of accumulated surpluses and have reduced their borrowings from banks. This circumstance, together with large purchases by member banks of United States Government securities floated during and since the World War, has changed the character of the earning assets of member banks so that about three-fifths of them now consist of securities. In addition, the member banks have acquired substantial amounts of long-term real-estate loans.

As a result of the decline in short-term commercial and agricultural paper in their portfolios, some member banks in the early 1930's lacked a sufficient amount of eligible short-term paper with which to obtain needed credit at the Reserve Banks. To remedy the situation Congress amended the Federal Reserve Act so as to authorize the Federal Reserve Banks to make advances to member banks on their promissory notes secured by any collateral satisfactory to the Reserve Banks. Such advances may be made for periods up to four months at rates which, under the law, must not be less than one-half per cent per annum higher than the highest discount rate in effect at the Reserve Bank. The rate on such advances is now 2 per cent at all Federal Reserve Banks.

Advances to Commercial and Industrial Enterprises. Under the provisions of Section 13b of the Federal Reserve Act (added by the Act of June 19, 1934), the Federal Reserve Banks may make advances to established commercial or industrial enterprises for the

purpose of supplying working capital. Such advances are made by the Reserve Banks either direct or in participation with a member or nonmember bank, but they may be made direct by the Reserve Banks only if the borrower is unable to obtain the requisite financial assistance on a reasonable basis from the usual sources.

The great majority of advances under this section of the act are made by member and nonmember banks with commitments on the part of the Federal Reserve Banks to discount the paper on demand without recourse, except that the member or nonmember bank must obligate itself for at least 20 per cent of any loss that may be sustained. If such loans are made jointly by a Federal Reserve Bank and a member or nonmember bank, the latter must likewise obligate itself for at least 20 per cent of any loss. Up to December 27, 1939, the Federal Reserve Banks had approved 2,800 applications for industrial advances and commitments in the aggregate amount of 188 million dollars. In recent months the Federal Reserve Banks have received relatively few applications for industrial advances and commitments, owing in part to the fact that the authority of the Reconstruction Finance Corporation to make loans of this type has been made much broader than that of the Federal Reserve Banks.

Advances to provide working capital for established commercial and industrial businesses may be made for periods up to five years. The rates applicable to industrial advances range from 2.5 to 6 per cent, while commitments to make such advances bear rates of from one-half to 2 per cent.

Loans to Individuals, Partnerships, and Corporations. Under the Emergency Banking Act of March 9, 1933, Federal Reserve Banks have power to make loans to individuals, partnerships, and corporations on the security of direct obligations of the United States Government. Such advances may be made for periods up to ninety days. Under this provision of law nonmember banks are now permitted to borrow from the Reserve Banks on direct obligations of the United States Government at the rates charged member banks, that is, one or 1.5 per cent. Rates on such advances to individuals, partnerships, and corporations other than banks range from 2.5 to 4 per cent.

OPEN-MARKET OPERATIONS

In the early years of the System each Federal Reserve Bank initiated and carried out its own open-market operations. In the early 1920's, however, it became increasingly evident that coordination of the open-market programs of the individual banks was essential to the execution of a unified credit policy for the nation as a whole. Ultimately Congress assigned full responsibility for all such transactions to the Federal Open Market Committee, composed of the seven members of the Board of Governors and five representatives chosen by the Federal Reserve Banks.[8] At the present time, although the Federal Reserve Banks do not individually buy and sell securities in the open market for their own accounts, they participate through their representatives on the Open Market Committee in the planning and execution of open-market purchases and sales. The System's holdings of Government securities are apportioned among the individual Reserve Banks on the basis of their expense and dividend requirements.

The Federal Reserve Bank of New York acts as the agent of the Federal Open Market Committee. It has a special department devoted to executing the buying and selling orders of the Committee.

FISCAL AGENCY, CUSTODIANSHIP, AND DEPOSITARY OPERATIONS

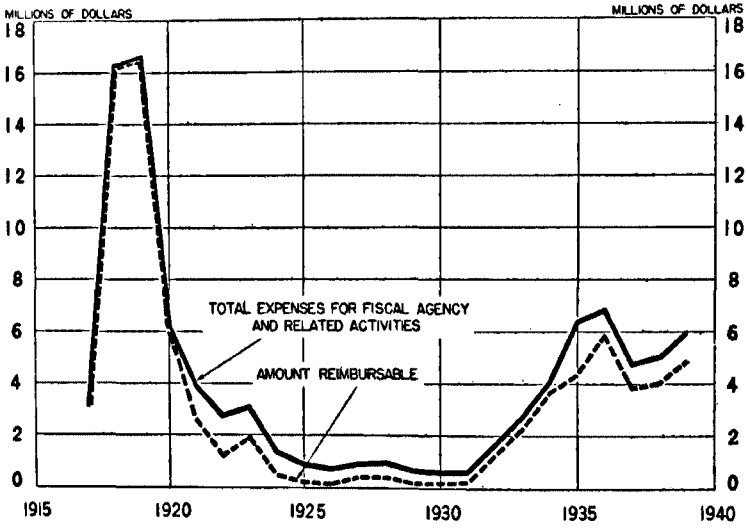
The facilities of the Federal Reserve Banks, including their experienced personnel, vaults, etc., have always been used extensively by the Government. During the years 1917–1919 the Federal Reserve Banks handled the sale of Liberty bonds, Victory notes, and Treasury certificates of indebtedness. In 1920 and 1921, at the direction of the Secretary of the Treasury, the Federal Reserve Banks assumed most of the functions of the subtreasuries, which were discontinued in accordance with an act of Congress. The location of the Federal Reserve Banks and branches in all sections of the country has facilitated the field work of the Treasury and of many of the recently created Federal emergency agencies.

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[8] For a discussion of the nature and purpose of the Federal Open Market Committee, see the papers "System Organization: Determination of Credit Policy" and "Instruments of Federal Reserve Policy."

About 3,100 employees, or one-fourth of the total personnel of the Federal Reserve Banks, devote their time to fiscal agency, custodianship, and depositary operations for the United States Treasury and other Government departments and agencies. This situation has not always existed. In 1932, for example, the proportion of the total personnel of the Federal Reserve Banks engaged in fiscal

EXPENSES OF FEDERAL RESERVE BANKS AS FISCAL AGENTS AND DEPOSITARIES OF THE UNITED STATES[a]



[a] For data, see Table 24, p. 438.

agency operations was about 10 per cent and in 1925 it was only 6 per cent.

In 1939 the total fiscal agency, custodianship, and depositary expenses of the Federal Reserve Banks amounted to 6 million dollars, of which 4.9 millions were reimbursable. Fiscal agency, custodianship, and depositary expenses for the period 1917–1939, together with amounts reimbursable, are shown in the accompanying chart.

Services for the United States Treasury. The principal activities carried on by the Reserve Banks for the Treasury Department are

those incident to the issuance, exchange, and redemption of Government securities and the payment of Government checks and coupons. About 1,000 employees are engaged in these tasks.

Under instructions from the Secretary of the Treasury, the Federal Reserve Banks print the announcements describing new Treasury issues, distribute them among all banking institutions and others interested, receive the subscriptions, and make allotments and deliveries of the securities. An unissued stock of each issue of coupon securities is maintained by the Reserve Banks for use in making exchanges. For example, the holder of a $5,000 bond may request five $1,000 bonds instead, or may desire to exchange a registered bond for a coupon bond. Exchanges necessitating the issuance of registered bonds must be completed in Washington. Upon redemption by the Reserve Banks, Government securities are cancelled and shipped to Washington, and the amount paid out is charged to the Treasurer's general account on the books of the Reserve Banks. The principal fiscal agency operations now handled for the Treasury, in addition to those pertaining to periodic financing, are the sale and redemption of United States Savings bonds and the redemption of Adjusted Service bonds.

During the year 1939 the Federal Reserve Banks handled the issuance of 1.1 million United States bonds, notes, and bills having a face value of 9.4 billion dollars; exchanged 861,000 securities amounting to 6.1 billion dollars; and redeemed 1.6 million securities amounting to 9 billion dollars. Incidental to these issues, exchanges, and redemptions, the Federal Reserve Banks held 187,000 United States Savings bonds in safekeeping for owners at the end of 1939, and handled during the year 92,000 pieces of securities deposited by banks as collateral to special deposits of public moneys under the Act of Congress approved September 24, 1917.

Depositary operations performed by the Federal Reserve Banks for the Treasury comprise for the most part the cashing of Government checks and the payment of Government coupons. Telegraphic transfers of Government funds from one Federal Reserve Bank to another are made by the Reserve Banks at the request of the United States Treasury. During the course of a year, the Federal Reserve Banks receive deposits of many millions of checks for collection for

account of various Government officials, such as collectors of internal revenue. Interest, pension, and other Government checks are cashed by the Reserve Banks for member banks. During the year 1939 the Federal Reserve Banks cashed 60 million Government checks totalling 14 billion dollars and paid 12 million Government coupons totalling over 757 million dollars.

In addition to their ordinary depositary operations the Reserve Banks, in accordance with special Treasury Department instructions, perform work incident to the examining and final payment of emergency work relief checks, which are drawn on the Treasurer of the United States payable through the Reserve Banks. During the year 1939, 74 million emergency relief checks amounting to 2.1 billion dollars were handled by the Reserve Banks.

Operations of Federal Reserve Banks as fiscal agents, custodians, and depositaries of the United States were in relatively small volume prior to 1917 and were then conducted without expense to the Treasury Department. When, in 1917, the Government began to issue securities to finance the war, fiscal agency operations of the Reserve Banks increased tremendously, and provision was made by the Treasury for reimbursing the Federal Reserve Banks for practically all expenses incurred by them in handling security transactions. At the request of the Treasury, the Federal Reserve Banks in 1921 agreed to limit their requests for reimbursement of fiscal agency expenses to those incurred in connection with new issues of securities. The term "new issues," or "current issues" as now used, means securities issued during the current or immediately preceding Government fiscal year. Inasmuch as a large portion of redemptions and exchanges are of securities issued prior to the preceding fiscal year the Reserve Banks absorb considerable expense in making redemptions and exchanges of Treasury issues.[9]

Federal Reserve Banks have never received reimbursement for expenses incurred as depositaries of the United States or for performing currency operations formerly handled by the subtreasuries. The Reserve Banks, however, receive reimbursement for their ex-

[9] Since July 1, 1940, the Reserve Banks have received reimbursement for expenses incurred in redeeming United States Savings Bonds regardless of the date of their issue.

penses incurred in handling emergency work relief checks. In this connection they perform the examining and accounting work incident to final payment, after which the cancelled checks are shipped direct to the General Accounting Office in Washington instead of to the Treasury Department, as is the case with other Government checks.

In addition to the major activities described above, the Federal Reserve Banks perform other operations as fiscal agents and custodians of the United States, including (1) operations relating to gold and silver under the Gold Reserve and Silver Purchase Acts of 1934; (2) operations, as designated agencies under executive orders and regulations, relating to transactions in foreign exchange; (3) certifying rates of foreign exchange to the Secretary of the Treasury in accordance with the provisions of Section 522 of the Tariff Act of 1930; and (4) executing orders for the purchase and sale of Government securities for the account of the Treasury Department.

Services for Government Units Other Than the Treasury. Upon request the Federal Reserve Banks act as fiscal agents, custodians, and depositaries for departments and agencies of the United States Government other than the United States Treasury. At the present time the Federal Reserve Banks perform various services for the Federal Farm Mortgage Corporation, Federal Land Banks, Federal Intermediate Credit Banks, Commodity Credit Corporation, and Federal Crop Insurance Corporation, all of which are under the supervision of the Department of Agriculture; for the Reconstruction Finance Corporation, Federal Home Loan Banks, Home Owners' Loan Corporation, and Federal Housing Administration, all of which are under the supervision of the Federal Loan Agency; for the United States Housing Authority and Public Works Administration, which are under the supervision of the Federal Works Agency; and for the Federal Deposit Insurance Corporation. The Federal Reserve Banks receive reimbursement for expenses incurred in serving these agencies. For some of these agencies the Federal Reserve Banks issue, exchange, and redeem securities and pay coupons. For some they perform special work such as closing and disbursing loans, holding collateral in safe-keeping, and receiving and applying payments.

From the standpoint of personnel, the operations handled for the Reconstruction Finance Corporation and the Commodity Credit Corporation rank next to those performed for the Treasury Department. The time of about 800 employees is devoted to work for the Reconstruction Finance Corporation and that of about 1,200 employees to work for the Commodity Credit Corporation. Work for the Commodity Credit Corporation includes the custody of hundreds of thousands of notes of producers of agricultural and other products together with the accompanying documents. The Federal Reserve Banks perform a considerable amount of detail work in connection with these loans, such as the computation of interest, warehouse charges, etc.

OTHER OPERATIONS

In addition to the operations of the Federal Reserve Banks already described, there are numerous other important activities that should be mentioned. Among these are (1) examining State member banks and banks that apply for membership in the Reserve System; (2) keeping informed of the general character and amount of the loans and investments of member banks with a view to ascertaining whether undue use is being made of bank credit for speculative or other purposes inconsistent with the maintenance of sound credit conditions; (3) receiving and analyzing applications from national banks to exercise trust powers, and from holding companies to vote the stock of member banks; (4) receiving and checking call reports of condition and of earnings and dividends from State member banks; (5) maintaining deposit accounts and performing other services for foreign central banks; (6) administering most of the regulations issued by the Board of Governors of the Federal Reserve System and giving advice as to their interpretation; (7) administering certain features of the Securities Exchange Act relating to margin requirements on security loans by banks, and by brokers and dealers in securities; (8) making telegraphic transfers of funds for member banks; (9) holding securities in safekeeping for out-of-town member banks; and (10) keeping informed of economic developments in their districts and publishing monthly reviews of business conditions.

Another paper in this volume deals with the examination and

supervision of banks and related subjects.[10] It may be pointed out here, however, that in some cases the district headquarters of the examiners for the Comptroller of the Currency and the Federal Deposit Insurance Corporation are located in Federal Reserve Bank buildings. This arrangement facilitates the coordination of the activities of the three Federal bank supervisory agencies.

While the various operations already described or referred to in this paper consume a large part of the time of the officers of the Federal Reserve Banks, there are other important subjects to which they must give considerable attention. Among these are banking and business conditions, particularly within their respective districts, and the problems with which member banks are currently faced. Considerable information along these lines is gained by officers of the Reserve Banks from contacts with bankers and others who come to the Reserve Banks, from attendance at bankers' conventions and conferences, and from personal visits to member and nonmember banks. In recent years the managements of the Reserve Banks, particularly the senior officers, have been devoting an increasing amount of time to such personal visits throughout their districts. These visits serve a dual purpose. The managements of the Reserve Banks, and through them the Board in Washington, gain a better understanding of banking and business conditions in their districts; and bankers and bank directors become better acquainted with the objectives and policies of the Federal Reserve System and the ways in which the System can serve them and the business and agricultural interests of their communities. The Federal Reserve Banks also cooperate with and extend their facilities and services to groups of banks that are studying investment and other banking problems.

EARNINGS AND EXPENSES

The Federal Reserve Banks are not operated for profit, but they have been self-supporting, as it was contemplated they should be. A large portion of their total assets is held in the form of idle cash, since they are required by law to maintain a reserve of not less than 40 per cent in gold certificates against their note liabilities (Federal Reserve notes in circulation) and a reserve of not less than 35 per

[10] "Supervision of the Commercial Banking System."

cent in gold certificates or lawful money against their deposit liabilities. Because of the general banking situation and large gold imports in recent years, reserves actually maintained have for some time been greatly in excess of these minimum requirements. At the end of 1939 cash reserves of the Federal Reserve Banks amounted to 16 billion dollars, compared with reserve requirements of 7 billions.

The nature and amount of Federal Reserve Bank earnings depend largely upon the demand for Reserve Bank credit on the part of member banks and upon Federal Reserve policy as to open-market operations. The demand for Reserve Bank credit by member banks is dependent upon the extent of the credit demands of their customers and upon the existing level of their reserves with the Federal Reserve Banks. When the demand for credit by the public is large and member banks in the aggregate hold only such reserves with the Federal Reserve Banks as the law requires, as was the case in 1920 for example, member bank borrowings at the Reserve Banks expand and earnings of the Federal Reserve Banks are correspondingly large. When, as at present, member bank reserves are far in excess of legal requirements, member bank borrowings at the Federal Reserve Banks are negligible, and earnings of the Reserve Banks arise chiefly from their holdings of securities bought in the open market. The amount and composition of the bills and securities held by the Federal Reserve Banks since their organization in 1914 through 1939 are shown in the chart on the following page.[11]

Reserve Bank credit was at its peak in 1920 and consisted almost entirely of discounts for member banks, made at rates yielding from 4.5 to 6 or 7 per cent. This situation is in marked contrast to that of recent years, during which Reserve Bank credit has again been relatively high but has consisted almost entirely of United States Government securities purchased in the open market and yielding about 1.5 per cent.

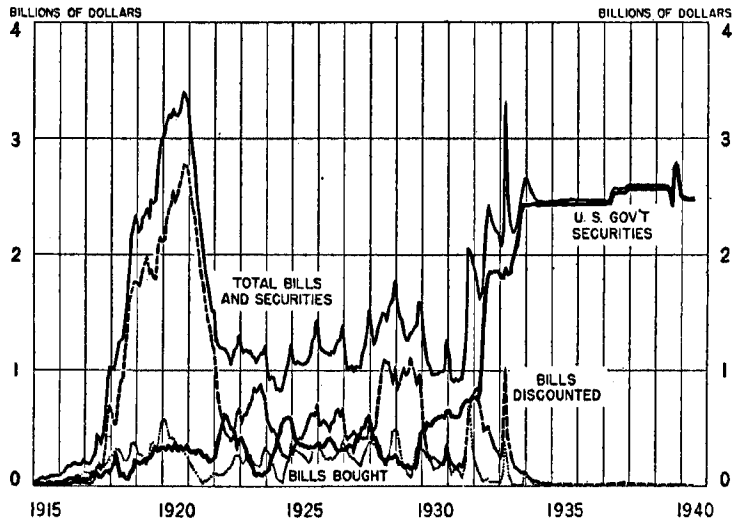
Expenses of the Federal Reserve Banks are incurred principally in performing the operations hereinbefore described. That the Federal Reserve Banks are organized for rendering service rather than for making profits is evidenced by the fact that most of their expenses

[11] The statement of condition of the twelve Federal Reserve Banks combined for Dec. 31, 1939, is given in Table 26, p. 444.

are incurred in collecting checks, supplying currency, and performing other operations from which no earnings are derived. Only a relatively small portion of their expenses is incurred in performing operations connected with discounts and with purchases of United States securities, which supply practically all their earnings.

Gross earnings of the Federal Reserve Banks from their organization in 1914 to the end of 1939 amounted to 1,316 million dollars, of which 666 millions were from discounted bills, 450 millions from

BILLS AND SECURITIES HELD BY FEDERAL RESERVE BANKS[a]



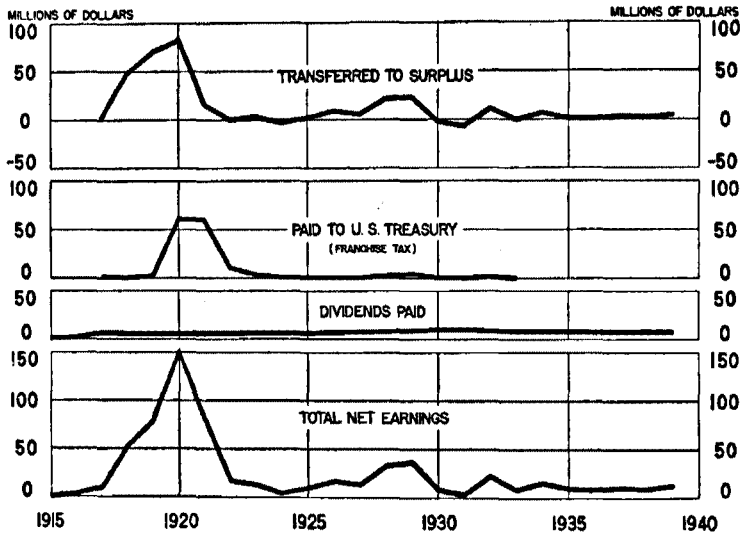
[a] For data, see Table 25, pp. 439–44.

United States Government securities, and 149 millions from purchased bills. The chief items of expense have been salaries, 361 million dollars; postage, expressage, and insurance on shipments of currency and securities, 60 millions; depreciation and charge-offs on bank premises, 54 millions; issuing and redeeming Federal Reserve currency, 51 millions; local taxes, 23 millions; and assessments for the expenses of the Board of Governors, 22 millions. Net earnings since organization have amounted to 622 million dollars.

The disposition of net earnings of the Federal Reserve Banks for

each year from 1914 through 1939 is shown in the accompanying chart. During 1920 and 1921 net earnings were unusually large, 149 and 82 million dollars, respectively. In consequence the franchise tax paid to the United States amounted to nearly 61 million dollars in 1920 and 60 millions in 1921, the payments for these two years alone representing over 80 per cent of all franchise taxes paid during the eighteen years when net earnings of the Reserve Banks were subject to such a tax. During recent years net earnings have not

DISPOSITION OF NET EARNINGS OF FEDERAL RESERVE BANKS[a]



[a] For data, see Table 27, p. 445.

been much in excess of dividend requirements. In 1933 the franchise tax was discontinued by Congress and at the same time the Federal Reserve Banks were required to subscribe for capital stock of the Federal Deposit Insurance Corporation in an amount equal to one-half of their accumulated surplus on January 1, 1933. The 139 million dollars thus paid to the Federal Deposit Insurance Corporation is in the nature of a contribution to its capital, inasmuch as the stock acquired by the Reserve Banks does not bear dividends. Its ownership gives the Federal Reserve Banks no voice in the manage-

ment of the Corporation, and the stock can not be sold. Accordingly, the Federal Reserve Banks have deducted the cost of the stock from their surplus.

In the aggregate the net earnings of the Federal Reserve Banks have been disposed of as follows:

	Amount (In millions)	Percentage
Dividends paid	$178	28.6
U. S. franchise tax	150	24.1
Payment for stock of F.D.I.C.	139	22.4
Net earnings retained	155	24.9
Total	$622	100.0

A little over one-fourth of the total net earnings of the Federal Reserve Banks has been paid to member banks as the 6 per cent dividend provided by law on their paid-in holdings of Federal Reserve Bank stock; almost one-half has been paid to the United States Government as a franchise tax and for stock of the Federal Deposit Insurance Corporation; the remaining fourth has been retained by the Federal Reserve Banks and added to their surplus. The surplus of the Federal Reserve Banks is not distributable to member banks. The law provides that should a Federal Reserve Bank be dissolved or go into liquidation, any surplus remaining after the payment of all debts, unpaid dividends, and the par value of its capital stock shall belong to the United States.

ADAPTABILITY TO CHANGES

Services now being performed by the Federal Reserve Banks demonstrate their adaptability to uses much wider and more varied than those contemplated at the time of the establishment of the Federal Reserve System. The history of the Federal Reserve Banks is a record of continuous evolution to meet new demands and new situations. They have constantly adjusted their policies and practices to new conditions and to the ever changing requirements of business and the Government.

Changes in the law have been found necessary from time to time to enable the Federal Reserve System to meet changing banking and business conditions, and further changes may be necessary if the System is to continue to be useful.

DETERRENTS TO MEMBERSHIP IN THE RESERVE SYSTEM

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B. MAGRUDER WINGFIELD
Assistant General Counsel

DETERRENTS TO MEMBERSHIP IN THE RESERVE SYSTEM

The effectiveness of the Federal Reserve System is dependent largely upon the extent of its membership. Membership is not compulsory, and 57 per cent of the banks that are of the kind that may be members have chosen not to join the System or for some reason can not join it.[1]

The reasons why banks remain outside the System may be divided into two groups: positive reasons resulting from statutory requirements that individual banks are unable or unwilling to meet; and negative reasons that result from the fact that some of the advantages of membership may be obtained without incurring its requirements. These two groups of deterrents will be given separate consideration in the following pages.

This paper does not undertake to pass judgment on the validity of the banks' reasons for not joining the System or on their wisdom in not doing so. Neither does it present concrete recommendations for overcoming the deterrents. What has been attempted is a factual survey of conditions and attitudes as they exist.

POSITIVE DETERRENTS TO MEMBERSHIP

The positive deterrents to membership arise from the numerous differences in the character and extent of statutory controls that govern the activities of banks. These variations arise principally out of the fact that member banks and nonmember insured banks are subject to different Federal statutory requirements, and also because State statutes applicable to State banking institutions differ in important respects from Federal statutes applicable to

[1] If a bank elects to operate under a national charter, it must also become a member of the Federal Reserve System; for banks under State charter, including trust companies, stock savings banks, mutual savings banks, and Morris Plan banks, membership is permissible but not required.

member banks. The following facts indicate, in general, these statutory differences that condition interbank competition.

National banks are subject to provisions of the National Bank Act, since they are chartered by the Federal Government; they are also subject to the provisions of the Federal Reserve Act applicable to member banks, because they are members of the Federal Reserve System; and they are further subject to provisions of the Federal laws relating to deposit insurance, because they are insured by the Federal Deposit Insurance Corporation.

State member banks are subject to State law; to provisions of the Federal Reserve Act applicable to State member banks; to many provisions of the National Bank Act; and to provisions of the Federal laws relating to deposit insurance, because they are insured by the Federal Deposit Insurance Corporation.

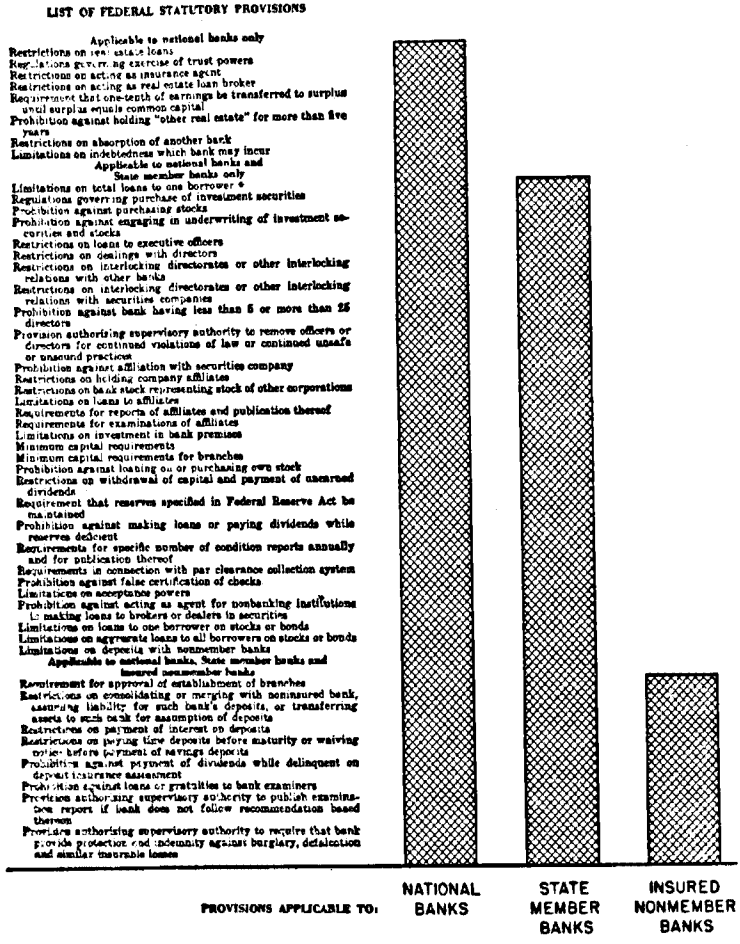
Insured nonmember banks are subject to State laws and to such Federal banking laws as apply to insured banks.

The Federal Government thus undertakes to regulate three principal classes of banks—national banks, State member banks, and nonmember insured banks.[2] Some of the principal provisions of Federal statutes which are applicable to each of these classes of banks are shown in the accompanying chart. It will be observed that in the case of member banks the number of Federal statutory restrictions is markedly greater than in the case of nonmember insured banks, thirty-one instances of this kind being shown by the chart. Incidentally, even as to member banks, it will be observed that in a number of important instances statutory requirements have been placed upon national banks which have not been made applicable to State member banks.

A result of the different application of provisions of Federal law to different classes of banks subject to Federal regulation is disclosed by the fact that while, as of December 31, 1939, there were 2,818 banks whose capital was not sufficient to enable them to become members of the Federal Reserve System, at the same time there were 5,622 nonmember State banks whose capital was not

[2] Noninsured State banks are subject to only a few Federal banking laws. Among these are provisions of law regulating loans for the purpose of purchasing or carrying securities registered on national securities exchanges, and provisions granting certain tax advantages in connection with the operation of a common trust fund if operated in conformity with the regulations of the Board of Governors.

SOME OF THE PRINCIPAL PROVISIONS OF FEDERAL STATUTES REGULATING THE PRINCIPAL CLASSES OF BANKS[a]



[a] There are a few Federal banking laws that apply to all banks, including noninsured banks. Among them are provisions regulating loans for the purpose of purchasing or carrying securities registered on national securities exchanges, and those granting certain tax advantages in connection with the operation of a common trust fund if operated in conformity with the regulations of the Board of Governors.

* The making of loans by State member banks is not subject to the limitations applicable to national banks on loans to one borrower, but loans in excess of the limit fixed by the National Banking Act may not be discounted with a Federal Reserve bank by a State member bank.

sufficient to enable them to become national banks.[3] Banks are not required by statute to have any specific amount of capital in order to be insured by the Federal Deposit Insurance Corporation.

The fact that numerous Federal statutory restrictions are made applicable to member banks but not to insured nonmember banks undoubtedly is an important deterrent to membership, and it may cause many individual banks to feel that the price of membership is high when compared with the price of deposit insurance.

It may possibly be suggested that the importance of this deterrent is not great, from a practical standpoint, because an insured nonmember bank that was considering membership would, in many cases, already be subject to State laws comparable to the Federal laws applicable to member banks. This is not the case in a number of important respects, however; and the remainder of this section will be devoted to comparing the extent to which the laws of the various States do not contain restrictions comparable to certain of the more important restrictions in the Federal laws applicable to member banks.

Par Clearance. One of the reasons why many State banks do not join the Federal Reserve System and why banks occasionally withdraw from the System is that member banks are not permitted by Federal statute to make exchange charges on checks forwarded to them by the Federal Reserve Banks for payment. However, nonmember banks can become insured without giving up the practice of making such charges.

None of the State laws prohibits banks from charging exchange for the payment of checks. In seven States (Mississippi, Louisiana, North Carolina, Alabama, Tennessee, Florida, and South Dakota), the laws specifically authorize such charges.

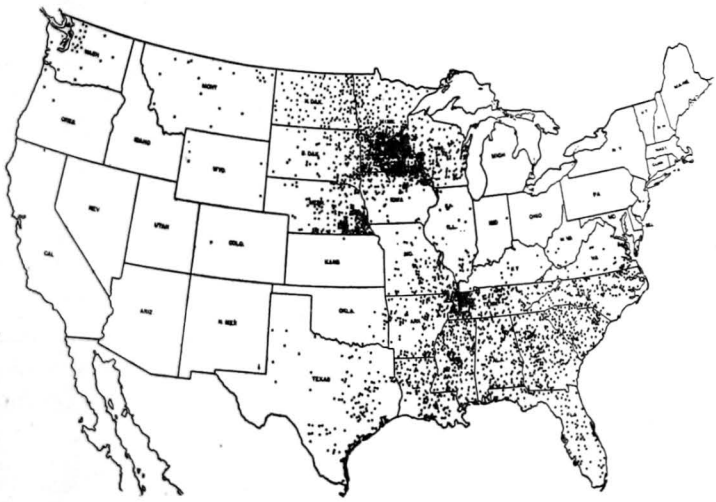
The Federal Reserve System maintains a list of banks that are willing to pay the full amount of checks drawn on them, without deduction for exchange, and these banks are known as being on the par list. As of December 31, 1939, as many as 2,629 nonmember

[3] There were also 293 State bank members of the Federal Reserve System with capital less than the amount required for the organization of national banks in the places in which such State bank members were located.

commercial banks were not on the par list and presumably, therefore, were charging exchange.[4] Of these, 2,398 were insured.

The geographic distribution of non-par banks is shown below. It will be observed that in twenty-nine States there are one or more banks of the kind that may be members of the Reserve System which are not on the par list, and that there is an especially heavy concentration of such banks in the South and the Middle West.

GEOGRAPHIC DISTRIBUTION OF NON-PAR BANKS, DECEMBER 31, 1939[a]



[a] For data, see Table 28, p. 446.

To many smaller banks, exchange charges are a source of substantial revenue they are reluctant to do without and, in many instances, state they can not do without. In view of these facts and the differences in Federal and State laws with respect to par clearance, it is clear that the requirement that checks be paid in full by member banks is an important obstacle to membership in the Reserve System, particularly since no such requirement is applicable to nonmember insured banks.[5]

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[4] This figure does not include mutual savings banks.

[5] A statement prepared by George B. Vest, Assistant General Counsel to the Reserve Board, describing in detail the par clearance problem, is published in the *Federal Reserve Bulletin* for February 1940, p. 89.

Minimum Capital Requirements. A bank applying for membership is required to have a fixed minimum amount of capital in accordance with the size of the place in which it is located—the highest requirement being that, if located in a city of more than 50,000 inhabitants, it must have a capital of $200,000. There is no fixed Federal capital requirement for insured nonmember banks, however, the Federal Deposit Insurance Corporation being required to consider each case on its merits.

Under the laws of the various States, banks may be organized with different amounts of capital depending upon the size of the place in which located. In many instances, the amount of capital required by the State laws for the organization of a new bank or for an established bank is less than the amount required for eligibility for membership in the System.

As of December 31, 1939, there were 2,389 nonmember banks of the kind that might be members whose capital was less than the amount required for eligibility for membership in the Federal Reserve System.[6] Yet of these 2,389 banks, 1,887 had obtained Federal deposit insurance.

When classified according to the amount of their capital stock, the 2,389 banks that have insufficient capital for membership in the System are distributed as follows:

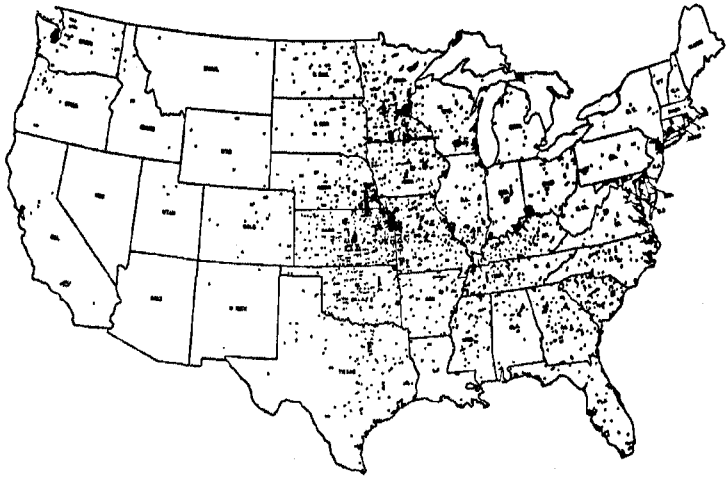
Less than $15,000	614
$15,000–$24,900	1,070
$25,000	109
$25,100–$49,900	127
$50,000	179
$50,100–$99,900	120
$100,000	97
$100,100–$199,900	67
$200,000 and over	6

It will be seen that about 70 per cent of the ineligible banks have less than $25,000 capital, while less than 8 per cent have $100,000 or more. The remainder are fairly evenly distributed among the intermediate classes.

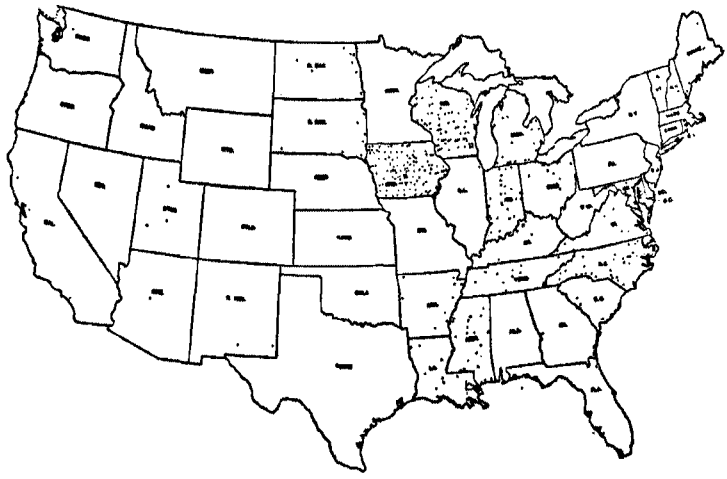
[6] This figure does not include banks with out-of-town branches and insufficient capital for membership; these cases will be discussed later in this section.

BANKS WITH CAPITAL STOCK INADEQUATE FOR FEDERAL RESERVE MEMBERSHIP, DECEMBER 31, 1939[a]

1. Because of Minimum Statutory Requirements for Operation in One City Only



2. Because of Special Minimum Statutory Requirements for Operation of Out-of-Town Branches



[a] For data, see Table 28, p. 446.

The distribution among the various States of banks ineligible for membership owing to deficiency of capital is shown in the upper map on page 279. The greatest concentration is in the States of Minnesota, Missouri, and Kansas, but there is considerable dispersion among other States, particularly those in the Central and Southeastern parts of the United States.

How membership capital requirements operate in practice is illustrated by the following case. An insured nonmember State bank, interested in membership in the Federal Reserve System, is located in a community of about 7,000 inhabitants. It has capital stock of $50,000, surplus and undivided profits of approximately $25,000, and deposits of approximately $600,000. The bank's management desires to have it become a member of the System but does not feel that its deposits warrant an increase in its capital stock to $100,000, the amount required for admission to membership. In the same place there is another State bank that is a member of the Federal Reserve System and may continue to be, in spite of the fact that it has a capital stock of $75,000, surplus and undivided profits of approximately $45,000, and deposits of slightly more than $1,000,000. This bank was admitted to membership at a time when the population of the place was such that the bank was not required to have a capital of $100,000, and there is no statutory requirement that its capital as a member shall be increased. In other words, a bank that has already joined the System may have a smaller amount of capital than is required of one that wishes to join the System.

Minimum Capital Requirements for Member Banks with Branches. A member bank is permitted to have branches only in States where branches are authorized by State law, and then, if it establishes out-of-town branches, only if it has at least $500,000 capital.[7] There is no Federal capital requirement for the establishment of branches by insured nonmember banks, however, the adequacy of the capital of a bank being decided on its merits by the Federal Deposit Insurance Corporation.

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[7] This requirement is subject to limited exceptions relating to banks located in States having a population of less than 1,000,000 and 500,000, respectively. In such States, member banks establishing out-of-town branches are required to have capital of $250,000 and $100,000, respectively.

The laws of thirty-three States authorize the establishment of out-of-town branches, but only in the case of Alabama, Connecticut, and Idaho is the capital required by State law equal to or greater than the capital required by Federal law for the establishment of branches by member banks. In most States the requirements of the Federal law greatly exceed the requirements of State law.

As of December 31, 1939, there were 429 nonmember banks having one or more out-of-town branches but lacking sufficient capital to become members of the Federal Reserve System. Of these, 414 had obtained Federal deposit insurance. The location of these banks, by States, is shown in the lower map on page 279.

It is apparent from the facts described in the preceding pages that the statutory capital requirements for membership constitute one of the more important deterrents to membership in the System.

Reserves. Member banks are required to carry 5 per cent reserves against time deposits, and additional reserves, which vary with location, against demand deposits. In so-called "central reserve cities," the required percentage is 22¾ per cent; in "reserve cities," 17½ per cent; and elsewhere (locations of so-called "country banks"), 12 per cent. Certain limited exceptions are applicable to banks in outlying districts of central reserve cities and reserve cities. All of the required reserves of member banks must be carried with their respective Federal Reserve Banks. They can not take the form of cash in vault, of balances with correspondent banks, or of investments. There is no Federal requirement for the maintenance of reserves by insured nonmember banks.

Reserve requirements under the laws of the various States are computed on such diverse bases that it is impossible to compare them directly with the Federal requirements applicable to member banks. In some States (for example, Illinois, New Hampshire, South Dakota, and Washington), the requirements are based on aggregate deposits. In other States (for example, California, Mississippi, Missouri, and Nebraska), the requirements are based upon the population of the place in which the bank is located; whereas in still others (for example, New Hampshire, New Jersey, New Mexico, South Carolina, and Washington), the requirements are the same for all banks in the State regardless of the size of the

place in which located. In at least one State (Kansas), a different requirement is applicable to banks on the one hand and trust companies receiving deposits on the other.

One of the major practical differences between reserve requirements for member and nonmember banks, respectively, has to do with the variety of ways in which nonmember banks are permitted to maintain their reserves. In all but two States (Illinois and New Mexico), nonmember banks may carry all or part of the required reserves in the form of cash in their own vaults—all in the case of seventeen States, and one-fifth or more in thirty-eight States. Also, the laws of seventeen States permit the carrying of a part of the required reserves in the form of investments (usually United States or State obligations). In all of the States the reserves of nonmember banks (except the portion consisting of cash in vault or invested in securities) may be carried with other commercial banks.[8]

Under the provisions of the Federal Reserve Act, the amount of reserves required of member banks may be increased or reduced by the Board of Governors within specified limits. The amount of reserves required of nonmember banks, on the other hand, is fixed in the statutes of the various States and is not subject to change by the supervisory authorities in any of the States except Illinois, Massachusetts, Michigan, and Pennsylvania.

In view of the many differences between the reserve requirements contained in the Federal statutes applicable to member banks and the requirements contained in the laws of the States applicable to nonmember banks, it is believed to be a fair statement that substantial differences between the reserve requirements of member and nonmember banks exist in all of the States. Such differences do not exist as between noninsured banks and nonmember insured banks.

Officers, Directors, and Employees. The Clayton Antitrust Act provides with limited exceptions that no officer, director, or employee of a member bank may serve any other banking institution in the same community. Officers, directors, and employees of a member bank are also prohibited with limited exceptions from serving as officers, directors, or employees of any securities com-

[8] The practice of carrying balances with other banks is a governing factor in the correspondent relationships later described as a negative deterrent to membership.

pany. The Federal laws applicable to insured nonmember banks contain no such prohibitions.

Neither do the statutes of thirty-six States contain any restrictions upon the services of officers, directors, or employees of banks comparable to those contained in the Clayton Act. The statutes of nine States contain comparable provisions applicable to directors or officers of savings banks but not to directors or officers of commercial banks or trust companies. Only three States have provisions comparable to those contained in the Clayton Act, which are applicable to banks and trust companies generally.

The statutes of forty-five States do not have provisions comparable to those applicable to officers, directors, and employees of member banks prohibiting their service of securities companies.

Purchase of Investment Securities and Stocks. Banks that are members of the Federal Reserve System are restricted in the kinds of securities they may purchase, and a member bank may not invest more than 10 per cent of its capital and surplus in securities of any one obligor. These restrictions are not contained in the Federal law governing nonmember insured banks.

A majority of the State statutes are much more liberal than the Federal statute regulating the purchase of securities by member banks. The statutes of thirty-two States permit the purchase of any bonds; two permit the purchase only of municipals and public utilities; and two provide that a bank may purchase any securities authorized by its charter. Only twelve States have statutory requirements comparable to or more restrictive than those of the Federal statute applicable to member banks. These twelve comprise five States that have virtually the same requirements as the Federal statute; two that permit the purchase of "investment securities"; and five that permit the purchase of securities of the State and its subdivisions and of the Federal Government.

It appears that only a small minority of the State statutes prohibit a bank from purchasing investment securities of any one obligor in excess of 10 per cent of capital and surplus. However, it is possible that in some States the statutory limitations on loans to one borrower may apply also to investments in the securities of one obligor.

With limited exceptions, Federal law prohibits the purchase of corporate stocks by member banks, but permits it in the case of insured nonmember banks. The laws of nineteen States (including three that permit purchase of any stock except bank stock and two that permit purchase of bank stock only), allow nonmember banks to purchase corporate stocks.

Affiliates of Banks. Banks that are members of the Federal Reserve System and that have affiliates are subject to a number of requirements and restrictions relating to the affiliates which do not apply to insured nonmember banks. In a large majority of the States there are no statutory provisions relating to bank affiliates and hence no restrictions that are comparable to the various Federal provisions relating to affiliates of member banks.

Under the provisions of Section 23A of the Federal Reserve Act, loans to or investments in affiliates by member banks, with certain exceptions, are restricted in the case of any one affiliate to 10 per cent of the capital stock and surplus of the member bank and in the case of all affiliates to 20 per cent of the capital stock and surplus of the member bank. Within these limitations, loans or extensions of credit to affiliates must be secured by collateral.

Only one State (Indiana) has statutory provisions comparable to Section 23A of the Federal Reserve Act. The State of New York applies similar restrictions to affiliated securities corporations but not to other affiliates. A number of States limit the amount of bank loans which may be made to corporations owned or controlled by officers or directors of the lending bank,[9] but the Federal statute would apply even if no officer or director of the bank had any connection with the affiliate.

Sections 9 and 21 of the Federal Reserve Act subject affiliates of State member banks and national banks to examination by the Federal Reserve System and the Comptroller of the Currency, respectively. The statutes of only seven States (Arkansas, Indiana, Kansas, Maryland, New York, Pennsylvania, and Virginia) contain comparable provisions relating to affiliates of banks.

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[9] These provisions are usually contained in a section of the State statute limiting loans to officers of the bank.

Section 9 of the Federal Reserve Act and Section 5211 of the Revised Statutes require State member banks and national banks to furnish not less than three reports annually of their affiliates and such reports must be published under the same conditions as govern the member bank's own condition reports.[10]

Indiana is the only State that has enacted comparable provisions relating to the furnishing and publication of reports of affiliates of banks.

Section 20 of the Banking Act of 1933 prohibits member banks from being affiliated with securities companies. The statutes of only two States (Michigan and Maryland) contain comparable restrictions for banks.

Federal law does not permit holding company affiliates of member banks to vote their stock in these banks without obtaining a voting permit from the Board of Governors. The Board is given certain regulatory powers in connection with the granting of these permits, and holding companies must comply with certain requirements of the Board in connection with obtaining the permits. Federal law does not impose such requirements on the holding by corporations of stock of nonmember insured banks.

There are no similar State requirements except in Indiana. A Kansas statute, however, requires any corporation owning bank stock to deposit security for its shareholder's liability and provides that if it does not deposit such security it can not vote its shares.

Possibly Pennsylvania should be included with the States named in some of the preceding paragraphs because a Pennsylvania statute gives the Department of Banking the power to impose the same restrictions, limitations, and regulations on affiliates of State banks as are imposed upon affiliates of member banks by any Federal law or regulation.

Reports of Condition. The Federal law requires State member banks and national banks to make not less than three reports of condition annually to the Federal Reserve Banks and to the Comp-

[10] State member banks furnish these reports to the Federal Reserve System, and national banks to the Comptroller of the Currency. Both of these agencies may exercise discretion in waiving the reports as well as examinations of affiliates.

troller of the Currency, respectively, and to publish such reports of condition. Although nonmember insured banks are required to make and publish such reports of condition as the Federal Deposit Insurance Corporation deems necessary, they are not required by statute to make any specific number of reports during any one year or to publish such reports. It is the practice of the Federal Deposit Insurance Corporation to require the submission of only two of these reports annually and the Corporation does not now make any requirement with respect to publication.

The statutes of thirteen States (Alabama, Arkansas, Florida, Georgia, Kentucky, Maine, Massachusetts, New Hampshire, New Jersey, Pennsylvania, Tennessee, Texas, and Vermont) do not require banks to submit or publish as many as three reports of condition annually.

The Federal Reserve Act contains specific requirements with reference to the furnishing and publication of reports of condition by the State member banks without regard to corresponding State requirements. Arrangements have finally been made for the single joint publication of condition reports by State member banks in all but seven States (Connecticut, Massachusetts, Pennsylvania, Louisiana, Tennessee, Illinois, and California), but negotiations to this end extended over a long period. It was first necessary to devise a standard form of report that would serve the purposes of the Federal banking agencies and most of the State banking departments.

Loans to Executive Officers. The Federal Reserve Act prohibits a member bank from extending credit in excess of $2,500 to any executive officer of the bank. This prohibition is not made applicable under Federal law to insured nonmember banks.

Two States do not restrict loans of a bank to its executive officers in any way. Twenty-five other States require that loans to officers of banks be approved by the directors of the bank but place no limitation on the amount of the loans. Thirteen States require that loans made by banks to their officers be secured and approved by the directors of the bank but place no limitation on the amount of the loans. Eight States absolutely prohibit banks from making loans to their officers.

Limitations on Loans to One Borrower. Federal law does not

permit national banks to lend to one borrower a sum in excess of 10 per cent of the capital and surplus of the bank, subject to certain exceptions. Although State member banks are not subject to this limitation, they are not permitted to discount with a Federal Reserve Bank any part of a loan to one borrower which is in excess of the limitation prescribed for national banks.

In general, State laws are more liberal than the Federal law with respect to limits on individual loans and such limitations are subject to fewer exceptions. Federal limitations apply whether a loan is secured or unsecured (unless the security is of a kind described in one of the exceptions) but in many States a larger limit is applicable if the loan is secured.

The limitation contained in State statutes on loans that are not secured and that do not come within any exception is 10 per cent of capital and surplus in twenty States, 15 per cent in twelve States, 20 per cent in thirteen States, and 25 per cent in three States. If the loan is secured and does not come within an exception, the limit is 10 per cent in ten States, 15 per cent in ten States, 20 per cent in thirteen States, 25 per cent in nine States, 30 per cent in one State, 50 per cent in one State, and unlimited in four States.

In view of the fact that the exceptions in the various State laws are different from the exceptions contained in the Federal law, it is difficult to make a direct comparison between them. Without reference to exceptions, however, it appears from the figures given above that, under the statutes of twenty-seven States, banks may make unsecured loans to a single borrower in relatively greater amounts than under the Federal laws. It also appears that banks may make secured loans in relatively greater amounts to a single borrower under the statutes of thirty-eight States than under the Federal laws.

NEGATIVE DETERRENTS TO MEMBERSHIP

In the previous section an analysis was made of positive reasons that may influence individual banks not to become members of the Federal Reserve System. This section will be devoted to an examination of the negative reasons why banks do not become members.

Member banks are entitled to use the facilities of the Federal

Reserve Banks for such purposes as obtaining credit extensions and supplies of currency and coin, making telegraphic transfers of funds, collecting checks and non-cash items, and placing securities in safekeeping. They benefit from the expert examining services rendered by the Reserve Banks and may call upon them for information and advice.

The need for these services, together with the importance of maintaining the Reserve System as an essential part of our banking machinery, is no doubt considered by many banks when they compare the advantages and disadvantages of membership in the Reserve System. Accordingly, the fact that some of the services of the System may be obtained from the Reserve Banks themselves, or from outside sources, without incurring the requirements of membership, may well be an important reason why numerous banks have not become members.

Reserve System Services Available to Nonmember Banks. The following services of the Reserve System are made available to nonmember banks by various sections of the Federal Reserve Act:

1. Nonmember banks that maintain balances sufficient to offset items in transit are permitted to deposit money, checks, and drafts payable upon presentation, and maturing notes and bills with Federal Reserve Banks for the purpose of exchange or of collection. (Sec. 13, par. 1.)

2. Federal Reserve Banks may discount for nonmember banks paper that would be eligible if held by a member bank, provided the nonmember banks are unable to obtain adequate credit accommodations from other banking institutions. This privilege is subject to affirmative authorization by the Board of Governors in unusual and exigent circumstances and to such limitations and regulations as the Board shall prescribe. (Sec. 13, par. 3.)

3. Federal Reserve Banks may make advances to nonmember banks on their promissory notes secured by direct obligations of the United States, subject to limitations and regulations prescribed by the Board of Governors. (Sec. 13, par. 13.)

4. Federal Reserve Banks may participate with nonmember banks in making loans for the purpose of furnishing working capital to established industrial or commercial businesses and may make

commitments to discount for nonmember banks loans made by them for such a purpose, provided that the nonmember banks bear at least 20 per cent of any loss sustained on such a loan. (Sec. 13b, par. 2.)

5. Member banks, with the permission of the Board of Governors, may act as media or agents of nonmember banks in applying for and receiving discounts from Federal Reserve Banks. (Sec. 19, par. 8.)

Correspondent Relationships. Services rendered by correspondents are felt by some banks to be more flexible than services they could obtain through membership in the Federal Reserve System and yet of approximately equal value. These services include credit facilities, check and non-cash collection facilities, investment advice, absorption of exchange charges, safe-keeping facilities, etc.

Through correspondents, nonmember banks indirectly receive the benefit of the expeditious check collection facilities of the Federal Reserve Banks. They send collection items to their correspondent banks which, in turn, usually forward all items payable outside of their city to the Federal Reserve Banks for collection. Also a nonmember bank can obtain its supply of currency and coin from its correspondent by paying the necessary shipping charges. At the request of the correspondent, in many cases the currency is shipped direct to the nonmember bank by a Federal Reserve Bank.

Miscellaneous Deterrents. Banks occasionally give one or more of the following reasons for abstaining from membership in the Reserve System: unwillingness to be subject to both Federal and State bank regulations, supervision, and examination; opinion that the Federal Reserve System's power to regulate is too broad; opposition to increasing governmental control; belief that the Federal Reserve examiners are too severe in their criticism; belief that the Federal Reserve System encourages branch banking, to which they are opposed; assumption that the Federal Reserve System is opposed to the dual banking system, which they wish to have continued; fear that their applications might be turned down because of presence of undesirable assets; belief that membership would subject them to an excessive amount of inconvenience and

red tape, and put them to extra work on account of the numerous reports to be filled out, etc.

SUMMARY

1. The differences in laws applicable to different groups of banks are not pointed out in this paper for the purpose of indicating that sound requirements for member banks should be abandoned. All requirements should be reviewed, however, to determine whether some of them are nonessential and might properly be abandoned or modified.

2. The differences in the Federal laws applicable to national banks, State member banks, and insured nonmember banks indicate the desirability of reviewing the provisions of the Federal laws in order to coordinate their application to the three principal classes of banks supervised by the Federal Government and to eliminate discriminations.

3. The differences between Federal and State laws applicable to banks indicate the desirability of determining some sound basis of eliminating discriminations and unnecessary requirements.

4. The provisions of the Federal Reserve Act that make the facilities of the Federal Reserve System available to nonmember banks, in some cases only in emergencies, indicate that the Reserve Board has some responsibility for nonmember banks. The fact that the Board is also charged with some regulatory authority over nonmember banks adds to this responsibility. The existence of such responsibility raises a question as to what authority need be vested in the Board in order that it may adequately carry out its responsibility in time of need.

5. The existence of nonstatutory reasons that may influence banks not to become members of the Reserve System indicates the desirability of reviewing the basis for these reasons and determining what steps should be taken to eliminate them.

6. Different groups of banks are subject to different types of limitations, restrictions, and requirements without any discernible logic for the differentiation. The rigidities of the provisions have prevented many banks from joining the Federal Reserve System, tend to prevent coordination of State and Federal supervision of

banks, and may be driving some of the functions of banking out of the banking system itself into nonbanking agencies.

IMPORTANT DIFFERENCES BETWEEN STATE AND FEDERAL LAWS PERTAINING TO BANKING[a]

▨ INDICATES DIFFERENCE OF SUBSTANTIAL EFFECT BETWEEN STATE AND FEDERAL LAWS.

STATE	NUMBER OF BANKS		PAR CLEARANCE	CAPITAL REQUIRED FOR MEMBER BANKS	CAPITAL REQUIRED FOR MEMBER BANKS WITH BRANCHES	RESERVE REQUIREMENTS	OFFICERS, DIRECTORS AND EMPLOYEES OF BANKS SERVING OTHER BANKS	OFFICERS, DIRECTORS AND EMPLOYEES OF BANKS SERVING SECURITIES COMPANIES	INVESTMENT IN SECURITIES	INVESTMENT IN STOCKS	AFFILIATES	REPORTS	LOANS TO OFFICERS	LOANS TO ANY ONE BORROWER
	Member	Nonmember												
Alabama	82	135	▨	▨		▨	▨	▨	▨	▨	▨	▨	▨	
Arizona	7	5		▨		▨	▨	▨	▨	▨	▨		▨	▨
Arkansas	76	160		▨		▨	▨	▨			▨		▨	▨
California	115	102		▨		▨	▨	▨	▨		▨			
Colorado	91	94	▨	▨		▨	▨	▨			▨			▨
Connecticut	58	71		▨		▨	▨	▨	▨	▨	▨			
Delaware	19	25		▨		▨	▨	▨	▨	▨	▨		▨	
Florida	[b] 56	113	▨	▨		▨	▨	▨	▨		▨		▨	
Georgia	70	215		▨		▨	▨	▨			▨		▨	
Idaho	28	23		▨		▨	▨	▨	▨	▨	▨		▨	
Illinois	[c] 804	443		▨		▨	▨	▨	▨	▨	▨		▨	▨
Indiana	140	164	▨	▨		▨	▨	▨			▨		▨	▨
Iowa	143	503	▨	▨		▨	▨	▨			▨		▨	▨
Kansas	203	471	▨	▨		▨	▨	▨			▨		▨	▨
Kentucky	117	330	▨	▨		▨	▨	▨			▨		▨	▨
Louisiana	36	[d] 109	▨	▨		▨	▨	▨			▨		▨	▨
Maine	43	26		▨		▨	▨	▨	▨	▨	▨		▨	
Maryland	71	104		▨		▨	▨	▨	▨		▨		▨	▨
Massachusetts	154	42		▨		▨	▨	▨	▨	▨	▨			
Michigan	213	220		▨		▨	▨				▨		▨	
Minnesota	200	471	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Mississippi	26	179	▨	▨		▨		▨	▨	▨	▨		▨	▨
Missouri	142	480	▨	▨		▨	▨	▨	▨		▨		▨	▨
Montana	48	43	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Nebraska	148	275	▨	▨		▨	▨	▨	▨		▨		▨	▨
Nevada	7	4				▨		▨	▨	▨	▨		▨	▨
New Hampshire	53	11		▨		▨	▨			▨	▨		▨	
New Jersey	[e] 277	87		▨		▨	▨	▨	▨	▨	▨		▨	
New Mexico	27	14		▨		▨	▨	▨	▨	▨	▨		▨	▨
New York	561	178		▨		▨	▨	▨		▨	▨		▨	
North Carolina	51	157	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
North Dakota	30	117	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Ohio	344	344		▨		▨	▨	▨	▨	▨	▨		▨	
Oklahoma	220	171	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Oregon	84	20	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Pennsylvania	775	598		▨		▨	▨	▨	▨	▨	▨		▨	▨
Rhode Island	14	12		▨		▨	▨	▨	▨	▨	▨		▨	▨
South Carolina	25	125	▨	▨		▨	▨	▨		▨	▨		▨	▨
South Dakota	68	111	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Tennessee	77	221	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Texas	501	[f] 237	▨	▨		▨	▨	▨	▨		▨		▨	▨
Utah	23	28		▨		▨	▨	▨	▨	▨	▨		▨	▨
Vermont	52	26		▨		▨	▨	▨	▨	▨	▨		▨	▨
Virginia	162	152	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Washington	80	78	▨	▨		▨		▨	▨	▨	▨		▨	▨
West Virginia	96	85	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Wisconsin	134	440	▨	▨		▨	▨	▨	▨	▨	▨		▨	▨
Wyoming	35	21		▨		▨	▨	▨	▨	▨	▨		▨	▨

[a] For par clearance, important differences are indicated only in States where one or more banks were affected on Dec. 31, 1939; for both types of capital requirements the corresponding date is Dec. 31, 1935. Indication of important differences in laws relating to one borrower is based only on limitations on unsecured loans, without consideration of exceptions contained in the various statutes.

The number of banks shown in the left-hand columns excludes mutual savings banks, private banks, branches of foreign banks, and a few inactive banks and miscellaneous financial institutions sometimes included in State banking statistics.

7. Of the approximately 8,000 nonmember commercial banks that are of the kind that might be members of the System, it appears

from available statistics that more than one-half may be prevented from becoming members of the Reserve System by statutory requirements. This estimate is based on the number of nonmember banks that either charge exchange or have insufficient capital to be eligible for membership, and is merely suggestive of the importance of the statutory deterrents to membership.

8. The tabulation on the preceding page shows, as of December 31, 1939, the number of member and nonmember banks located in each State and indicates in each of the States important differences in State and Federal laws of the kind discussed in this paper. The purpose of this tabulation is to portray concisely these important differences in each State that may be preventing banks from becoming members of the Federal Reserve System. In order to obtain a composite picture of the important differences in State and Federal laws, this tabulation should be studied along with the chart on page 275, which graphically shows the differences in Federal laws applicable to different classes of banks.

9. It appears from the tabulation on the preceding page that in all forty-eight States there are important differences between Federal and State laws which may be preventing banks from becoming members of the Federal Reserve System. In one State there are twelve such differences; in three States, eleven; in eighteen States, ten; in eleven States, nine; in seven States, eight; in five States, seven; and in three States, six.

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MONEY SYSTEM OF UNITED STATES

Our modern economic system is frequently called a money economy. All price and debt contracts are drawn and paid in money units, and income and wealth are computed in terms of money. Although in the end the supply and flow of goods and services measure real wealth and income, these are affected by the supply and flow of money. Each of these flows—of goods and of money—is influenced by the other and is essential to the smooth operation of the other. Our present-day complex industrial organization could not function without the agency of money, and money without goods and services would serve no purpose at all. Availability of money at rates permitting profitable business operations is necessary for the proper functioning of the economy. For this reason the smooth operation of the monetary system is of vital concern to all members of the general public.

Previous papers have described the organization and operation of the banking system. Money may be said to be the stock in trade of banks. It is also in a sense their product, because at the request of borrowers or of sellers of securities banks convert other forms of wealth or claims to wealth or prospective income into money that is available for current use as purchasing power. It is a part of the task of the banking system to make money available for sound purposes and so far as possible to avoid making it available for unsound purposes.

This paper and the one that follows are concerned with a description of the organization and operation of the money system in this country. They will endeavor to provide answers to a number of important questions about money and to give basic information necessary for considering a number of others. How should money be defined? What important distinctions are there between the various kinds of money that exist in our system? How does each kind come into being or cease to exist? What are the forces and limitations that govern changes in their supply? What relations are there

between changes in the supply of money and changes in other aspects of our economic mechanism, such as employment, income, production, prices? What variations are there in the use of money and how are they related to other economic factors? To what extent may the supply and use of money be controlled and what mechanisms of control may be effectively employed? What should be the standards and objectives of control? These are fundamental questions, and in a sense all matters relating to our money and banking system stem out from them.

WHAT IS MONEY?

Money is a term freely used to cover a number of different kinds of instruments and a variety of different concepts. For example, the two questions, "How much money do you have in your pocket?" and "How much money are you worth?" cover different concepts of money. Defined in terms of its functions, money is a medium of exchange and a common denominator of value, as well as a store of value and a standard of deferred payments. One economist in answer to the question, "What is money?" has given the simple answer that money is what buys things—purchasing power. Probably the most common definition in ordinary practice is that money is means of payment.

These simple *definitions* can be accepted for general purposes, but it is difficult on the basis of available information to find a *measure* of the supply of money that satisfies the definitions and at the same time does not cover too broad a scope to be practicable. Because of the many uses the term "money" may comprehend, no single measurement of the money supply will be adequate in the consideration of all matters of public policy on monetary matters. In dealing with different problems, different ways of measuring the amount of money may best serve. It is essential, however, that there be no misunderstanding about what concept of money is adopted in each case.

In our modern monetary system there are several different kinds of instruments that serve one or more of the many purposes of money. The various means of payment that may serve as money include much more than the coins and paper money that we carry

in our pocket and use to make current small cash payments. The largest proportion of monetary payments is effected by means of credit instruments—primarily checks drawn against bank deposits. The storage of means of payment awaiting spending or other use may also be represented by credits on the books of banks or by more complicated credit instruments. There is a great variety of such credit instruments—ranging from bank deposits and mercantile book credits to complex bonded obligations of corporations and public bodies. Which of these may we call money? The following is a list of various evidences of wealth which fulfill some of the functions of money, classified into broad groups according to their monetary capacity:

1. Basic or reserve money
   Gold (and to a limited extent silver)
   Deposits with Federal Reserve Banks
   Currency (coin and paper money) in banks
2. Current media of exchange
   Currency (coin and paper money) in circulation
   Demand deposits in banks
3. Other liquid claims
   Time and savings deposits in banks
   Credit balances with brokers and other financial or commercial establishments, payable on demand or after short notice
   Open lines of credit with banks or merchants—represent potential purchasing power
   Highly liquid credit instruments, generally marketable without loss of principal, e.g., bankers' acceptances, Treasury bills, brokers' loans
   Shares in savings and loan associations, credit unions, and similar organizations, and cash values of life insurance policies
   Readily marketable securities—actively traded in and easily salable, generally at little variation in price

Reserve money serves certain special and important functions in the monetary system. The current media of exchange include the instruments more commonly known as money. The liquid claims are generally not included in measures of the money supply, although they may at times play an important part in the operation of the money system.

Certain types of money are considered more basic than other

types. In earlier times most basic money was metallic and as other forms of money came to be issued they were generally made convertible into a basic metal or metallic money. By custom or by law issuers of other types of money followed the practice of carrying reserves of metallic money which generally equalled only a part of the issues outstanding. The reason for this practice or requirement was to facilitate convertibility in case of question as to the value of the money issued. In the course of time types of reserves other than metal came to be acceptable.

In the United States at present gold coin or bullion serves directly or indirectly as the reserves of the Treasury behind its currency issues and of the Federal Reserve Banks behind their note issues and deposits. All commercial banks that belong to the Federal Reserve System must carry basic reserves in the form of deposits with Federal Reserve Banks. Banks not members of the Federal Reserve System carry reserves in part in the form of currency in their own vaults but to a larger extent as balances with other banks, mostly member banks. In effect, therefore, the Federal Reserve Banks hold the basic reserves of the banking system.

Gold, gold certificates, and deposits with Federal Reserve Banks in general serve only as reserves and are not available for use by the general public as money. Currency, issued by the Treasury or by the Federal Reserve Banks, is used to some extent as bank reserves, but more largely as ordinary means of payments. Currency is freely convertible into reserve money, and to obtain currency from the Reserve Banks or the Treasury banks must draw upon their reserves. Thus currency has some of the qualities of basic or reserve money.

Gold and Silver. Gold at one time freely circulated as money and was the basic form into which all other types of money could generally be converted, but now it does not circulate in most countries nor may it be held by the general public as money. Gold still serves as money, however, and performs important functions in our monetary system. Besides providing the reserve basis for the Federal Reserve Banks, it is used to meet international payments—it is international money.

When gold comes into the country or is produced, it is sold to

the Treasury at approximately $35 an ounce. The Treasury pays for the gold by drawing upon its balances with the Federal Reserve Banks, and generally in the course of time replenishes these balances by issuance of gold certificates against the gold purchased and depositing the certificates to the credit of the Reserve Banks. These processes result in increases in bank deposits, in member bank reserves, in Reserve Bank gold certificate reserves, and in the Treasury's gold stock. An outflow of gold would result in corresponding reductions in these items. Treasury purchases of silver are handled in a somewhat similar manner, with differences as to uniformity of price paid, as to amounts held against the issuance of silver certificates, and as to the circulation of the certificates.[1] Silver certificates are generally not held as reserves by the Federal Reserve Banks but are paid out into public circulation to meet the demand for currency. Another important difference between gold and silver is that silver is less widely acceptable for meeting international payments.

The effect of the issuance of silver certificates, as of gold certificates, is to increase both bank deposits and bank reserves. It is important to recognize that the gold and silver stocks held by the Treasury as collateral for certificates are not inactive or idle; the money which they back directly or indirectly is part of the stream of money that belongs to the Reserve Banks or to the public and is available for active use.

On June 30, 1940, the monetary gold stock of the United States, valued at $35 an ounce, amounted to about 20 billion dollars, of which 17.8 billions were held by the Treasury as collateral against gold certificates belonging to the Federal Reserve Banks. The remainder was held in the cash balance of the Treasury and included 1.8 billions belonging to the Stabilization Fund. At the same time there were about 1.9 billion dollars of silver certificates outstanding, most of which were in circulation.

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[1] Silver is purchased at about 70 cents an ounce for newly produced domestic silver and 35 cents for foreign silver, but silver certificates are issued against silver at the statutory monetary value of about $1.29 an ounce. In practice the Treasury has issued certificates in a dollar amount corresponding approximately to that paid for the purchase of silver, leaving the additional silver bullion in its vaults.

Deposits with Federal Reserve Banks. Deposits with Federal Reserve Banks provide another form of basic money. These deposits include member bank reserve balances, Treasury deposits, certain foreign deposits, and special types of nonmember bank deposits. On June 30, 1940, Reserve Bank deposits were as follows (in millions of dollars):

Member bank reserve balances	13,781
United States Treasury—general account	234
Foreign bank deposits	681
Other deposits	517
Total	15,213

Member bank reserve balances, which comprise the bulk of Reserve Bank deposits, are not used by the general public as money, but are held by member banks as reserves against their deposits.[2] Of the reserve balances held on June 30, 1940, about 6.9 billion dollars, or about half, represented required reserves; the remainder were excess reserves. Reserve balances are a more high powered form of money than ordinary bank deposits in that an increase in reserves provides banks with additional funds which they may lend and, through shifts from bank to bank, relend until new deposits are created to several times the amount of additional reserves. Conversely a decrease in reserve balances below requirements may make it necessary for member banks, as a group, to borrow at the Reserve Banks or else to liquidate assets and thereby reduce deposits by an amount equal to several times the reserves lost.[3]

Currency. Currency, as the term is used in this statement, includes coin and paper money issued by the Government or by

[2] Under existing law and regulation minimum reserves required to be held are as follows: against demand deposits, 22¾ per cent for central reserve city banks, 17½ per cent for reserve city banks, and 12 per cent for other banks; against time deposits, 5 per cent for all banks. The minimum requirements stated in the law are 13, 10, 7, and 3 per cent respectively, and the Board of Governors of the Federal Reserve System has the power to raise them to twice these amounts. In this and the following paper the term "reserves" as applied to member banks refers to reserve balances with Federal Reserve Banks. Individual banks carry other types of asset reserves in the form of cash, balances with other banks, or liquid assets which are readily available for other uses or for meeting claims of depositors, but for the banking system as a whole these secondary reserves may not generally be used as a basis for further credit expansion.

[3] There is further discussion of the nature and significance of member bank reserves in the latter part of this paper and in the one following on "Monetary Controls."

banks under Government authority. In this country at present currency is issued only through the Federal Reserve Banks and the Treasury. Currency has a special significance because it is legal tender and because it is more generally acceptable and more conveniently used for certain types of payments than are other forms of money. As already pointed out, it also has some of the qualities of basic reserve money. For many payments, however, and also as a store of value, currency is much less convenient than bank deposits, and the amount of currency in circulation represents a relatively small part of the total money supply of this country. Under the present money system, currency and bank deposits are generally interchangeable.

The term "money in circulation," as it is called on the official Treasury statement, or "currency in circulation," as it may be more narrowly designated, includes all United States money held outside the United States Treasury and Federal Reserve Banks. It includes all coin and paper money held by the public in the United States and used in day-to-day transactions, i.e., cash carried in pockets of individuals and held in cash registers and tills of merchants and businessmen. The official figures also include some currency that strictly speaking does not circulate, e.g., cash in vaults of commercial and savings banks, money in hoards, paper currency lost or destroyed, United States coin carried abroad by travellers and not appearing in the official export figures, and United States paper currency in foreign countries. Since no accurate current measurements of the amount of this inactive currency are available, it is not possible to exclude it from the current statistics on money in circulation; ordinarily it may be presumed not to change greatly in amount except perhaps over very long periods of time. On June 30, 1940, approximately 7.8 billion dollars of currency was reported as in circulation, including about 5.2 billions of Federal Reserve notes and 1.6 billions of silver certificates; the remainder consisted of coin and various kinds of paper money formerly issued and not yet retired.

Bank Deposits. The type of money most commonly used in making payments is the demand deposit at banks. It is also a convenient means of holding money in readily available and safe

form. In many cases the money supply is narrowly defined to include only currency and *demand* deposits, excluding time and savings deposits, which must be converted into demand deposits or currency before being used as means of payment. This narrow combination of currency and demand deposits has the advantage of being simple, precise, and easily measurable, and is adequate as an indication of the amount of money immediately available as media of exchange.

Classification of savings and time deposits is an important borderline question involved in adopting a measure of the money supply. These deposits include savings that have been set aside as an investment on which income is received and that may be considered as in somewhat the same class as the ownership of securities, but they may also include a considerable volume of funds held for current uses. An interest return is received but at the same time the funds can be readily converted into demand deposits. In practice, savings deposits in banks are almost as promptly available as demand deposits and are frequently so considered by depositors.

The degree of availability of time deposits for use as current money has varied considerably from time to time. In the 1920's they could be easily withdrawn from many banks, and sometimes included current funds that might otherwise have been in demand deposits. In recent years, on the other hand, time deposits have become less attractive. Interest rates paid on them have been low, and banks have often refused to pay any interest upon large time balances. Service charges imposed on demand deposits and graduated according to size of balance and activity of account, have encouraged the holding of a larger portion of funds in checking accounts rather than in time accounts. Savings have also been held in large amounts in the form of hoarded currency. These developments have had the effect of increasing the amount of funds held in demand deposits or as currency and decreasing relatively the volume of time deposits. The total of demand deposits and currency, therefore, indicates a larger growth than has actually occurred in the volume of current money since the 1920's. Consequently it does not accurately reflect changes in the people's ability and willingness to spend.

From still another angle, it is difficult to distinguish between the monetary functions of demand and time deposits. Both are a part of the banking mechanism and are available to individual banks receiving them as a source of funds for making new loans and investments. Moreover, when banks make new loans and investments the funds may eventually be deposited in either checking or time accounts. Both types of deposits participate in the expansion of deposits resulting from extension of bank credit.

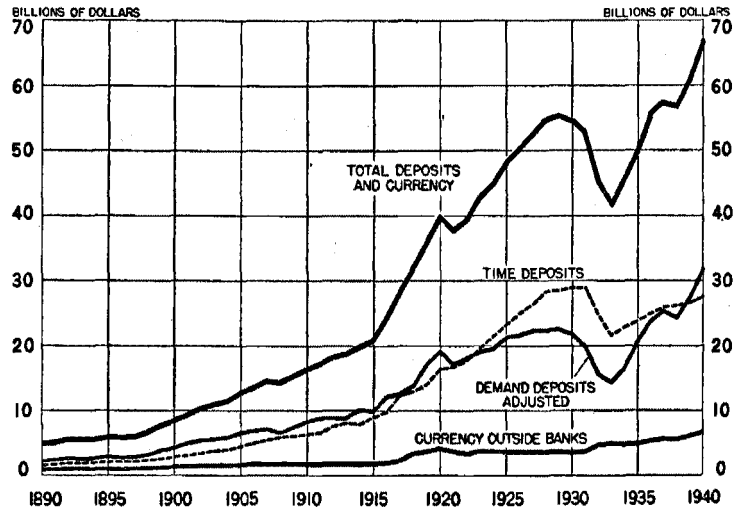
Other Liquid Claims. If the concept of the money supply is to be considered as an important economic force, reliance upon demand deposits and currency as the sole measure of that supply will at times prove misleading. The availability of funds in forms readily convertible into demand deposits or currency—such as excess reserves held by banks, time deposits, Treasury bills held by corporations, and lines of credit—and likewise the constant shifting of funds from one use to another may be fully as significant from the standpoint of the effect upon economic developments as the holding of demand deposits or currency.

The various liquid claims, other than demand deposits and currency, listed in the tabulation on page 297, are under normal conditions practically the same as money to their owners because they may be quickly converted into current media of exchange or be used directly as means of payment. Open lines of credit for bank loans or for mercantile charge accounts, where available for immediate use, may be as effective as existing deposits, but they can be used only for limited purposes and, moreover, are difficult to measure. Because these various liquid claims are generally converted into bank deposits or currency before being used as means of payment, they are frequently not considered as a part of the available supply of money. Their existence, however, may have a monetary significance fully as important as the existence of demand deposits in banks, because they can be so easily converted into demand deposits or used to obtain existing deposits that would not otherwise be used. Any analysis or theory that postulates the supply of money as an economic force must, therefore, take into consideration liquid claims of these kinds as well as the supply of currency, bank deposits, and gold.

CHANGES IN VOLUME OF BANK DEPOSITS AND CURRENCY

All things considered, the total of bank deposits, both demand and time, and of currency in circulation outside of banks, with some adjustments to avoid double counting, provides the best available indication of the functioning of banks in our monetary system. This particular measure includes the elements that pass through banks in the process of their creation or extinguishment. The accompanying chart shows available data for these items for the period 1890 to 1940 inclusive. In interpreting these figures, it is

BANK DEPOSITS AND CURRENCY[a]



[a] For data, see Table 29, p. 447.

important to keep in mind the many other elements that serve the functions of money. Any of these items may at times assume a role of great significance in the operation of the money system.

It is clear from the chart that in the past half century the amount of actual currency in circulation has been a relatively small part of the total supply of money. It has been estimated that currency payments probably comprise not over 10 per cent of total money payments in this country. The chart also shows that the volume of bank deposits has generally grown much more rapidly than the

amount of currency in circulation. This growth in deposits was continuous until 1920, with an acceleration in the war period, and after a small drop in 1921 it was resumed. Probably the largest decline in bank deposits in the history of the country occurred in the early 1930's, in part because of bank failures and accompanying heavy withdrawals of deposits in the form of currency and also because of a substantial liquidation of bank loans. Since 1933 the tremendous inflow of gold to this country and the increase in bank holdings of United States Government securities has brought bank deposits to new high levels, and at the same time there has been a gradual increase in currency held by the public.

HOW THE MONEY SUPPLY IS INCREASED OR DECREASED

Modern money systems are elastic. The supply of money, whether defined broadly or narrowly, is not an unchanging amount but varies more or less in response to changes in the public's demand for cash and deposits. In addition there may be considerable variation in the rate of use of the available supply. There are at times difficulties that prevent a smooth adjustment of money supply to economic need, and sometimes speculative developments may call forth excessive expansion in the supply and use of money that results in undue price rises or unbalanced productive activity. Any attempt to control these forces must be exercised in part through the various factors that bring about increases and decreases in the supply of deposits and currency and in part through those factors that influence the use of money or its substitutes in any of their various forms.[4]

Changes in Bank Reserves. Since bank deposits, and to some extent currency, are required to have reserves held against them, the supply of bank reserves is an important key to expansion and contraction of other forms of money. In general the reserves of an individual bank are increased by deposits of currency and of checks drawn on other banks, and reduced by withdrawals of currency or through the deposit in other banks of checks drawn on it. While shifts of reserve funds among banks are important for the individual

[4] These controls are discussed in the following paper on "Monetary Controls."

banks affected, they do not add to or subtract from the total volume of reserves of all banks. Reserves of the banking system as a whole are increased or decreased only by deposits or withdrawals of reserve funds from outside the banks themselves.

Federal Reserve Bank reserves are increased or decreased primarily only as a result of changes in the country's gold stock.[5] These changes in turn are determined by domestic gold production and by shifts in the country's balance of international payments. New gold, produced in this country or imported, when the Treasury acquires it and issues gold certificates against it, increases bank deposits, member bank reserve balances at Federal Reserve Banks, Reserve Bank gold certificate reserves, and the monetary gold stock of the Treasury. The Reserve Bank reserves and the Treasury's gold stock are available in case individuals or banks wish to convert their deposits into gold for export to meet a shift in the country's international balance of payments and are primarily useful for that purpose.

In general the aggregate gold reserves of the Federal Reserve Banks can not be increased or decreased by action of the Reserve Banks themselves or of their depositors, except when gold is imported or exported or the Treasury acquires domestic gold.[6] A depositor may withdraw his balance only in the form of currency, of gold for export, or of a check or draft. If it is withdrawn in currency, the Reserve Bank may issue Federal Reserve notes to supply the demand; if withdrawn by check, that check will come into the possession of some member bank and increase that bank's balance at the Reserve Bank, with no change in total Reserve Bank deposits. A member bank reserve balance may be drawn upon to pay a loan at a Reserve Bank, and a new loan or a purchase of securities

[5] Federal Reserve Banks are required by law to hold reserves of gold certificates or lawful money (currency) equal to at least 35 per cent of their deposits and to hold reserves of gold certificates equal to at least 40 per cent of their Federal Reserve notes in circulation. Gold comprises by far the most important part of the reserves actually held by the Reserve Banks. In general they hold only such amounts of currency as are needed to supply the currency demands of member banks and the public. Factors affecting Reserve Bank reserves are further discussed in the following paper.

[6] Lawful money reserves could be varied somewhat by practices followed by the Reserve Banks with respect to the payment into circulation of Treasury currency received.

by a Reserve Bank will add to the reserve balances of one or more member banks, but these transactions do not affect the aggregate of Federal Reserve Bank reserves.[7]

Reserves of member banks, i.e., their balances with Federal Reserve Banks, may in the aggregate be increased by additions to monetary stocks of gold, by the issuance of silver certificates, and by a reduction in the volume of currency in circulation; they may be reduced by an outflow of gold and by an increase of currency in circulation. They may also be increased by Federal Reserve Bank loans to member banks and by Federal Reserve Bank purchases of securities or acceptances in the open market; or they may be reduced by the repayment of member bank borrowings or the sale of bills or securities from the Reserve Banks' portfolios. Changes in Treasury cash balances have from time to time had a temporary effect on reserves.[8] Individual member banks may increase their reserves by obtaining them from other banks, but changes in total reserve balances result only from the factors mentioned.

Month-to-month variations in the volume of member bank reserves and in the factors affecting them for the period since 1918 are shown in the chart on page 308. Member bank reserves increased somewhat from 1918 to 1924, then were relatively stable until 1931. Throughout this period changes in reserves resulting from gold and currency movements were largely balanced by changes in Reserve Bank credit. Reserves fluctuated somewhat during the period of banking difficulties from 1931 to 1933, and

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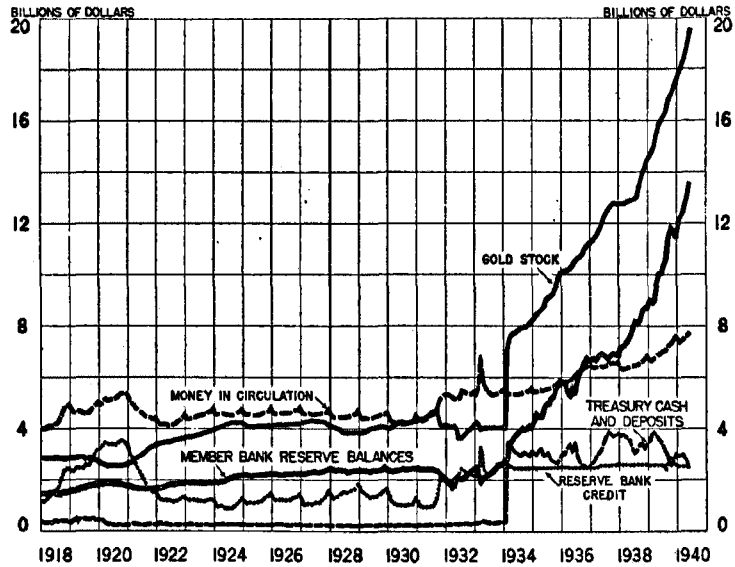
[7] Changes in member bank deposits at the Reserve Banks, except those resulting from gold movements, therefore, do not affect Reserve Bank reserves. Nor do they determine the potential ability of the Reserve Banks to make loans or purchase securities. This ability is based in the final analysis upon the Reserve Banks' power to create deposits and issue notes and is limited, under present statute, by the amount of reserves which the Reserve Banks hold in relation to their note and deposit liabilities. These reserve requirements are at present not an effective limitation. A further discussion of this subject is given in the following paper.

[8] The factors of increase and decrease of reserve funds and their operations in the past are described in Chaps. V and VIII of *The Federal Reserve System—Its Purposes and Functions*, published in 1939 by the Board of Governors of the Federal Reserve System. See also "Supply and Use of Member Bank Reserve Funds," and "History of Reserve Requirements for Banks in the United States," *Federal Reserve Bulletin*, July 1935 and November 1938, respectively. These articles are also available as reprints.

since 1933 they have shown a sixfold growth primarily as a result of exceptional gold acquisitions.

The reserves of banks not belonging to the Federal Reserve System may be increased or decreased as a result of the same forces that affect member bank reserves, but since nonmember banks directly or indirectly carry a large part of their reserves with member banks, most changes in nonmember bank reserves are reflected in those for member banks. Thus new reserve funds coming into

MEMBER BANK RESERVES AND RELATED ITEMS[a]



[a] For data, see Table 30, pp. 448-52.

the hands of nonmember banks are likely also to result in an increase in member bank reserves, and a loss of reserves by a nonmember bank may result in a withdrawal from a member bank.

Issuance and Retirement of Currency. Currency is issued by the Federal Reserve System and the Treasury and most of it goes into or out of circulation through the Federal Reserve Banks. Partly because of the special legal tender quality of currency, the machinery of the Federal Reserve System and the Treasury for issuing and retiring currency is designed to enable the general

public to convert other types of money into currency in the denominations desired.[9] When more currency is required, the public obtains it from local banks and the latter obtain it, directly or indirectly, from the Federal Reserve Banks. Contrariwise, the public deposits currency in excess of current needs in local banks, which in turn deposit it with the Federal Reserve Banks. The Federal Reserve Banks and the Treasury play a passive role in these operations. The regional organization of the Federal Reserve System with its twelve main offices and twenty-four branches provides convenient facilities to its 6,400 member banks for supplying and retiring currency in response to public demands. Nonmember banks obtain currency through member bank correspondents.

The demand for currency is determined by various conditions. A certain amount is required for day-to-day cash expenditures of individuals; a certain amount is required for payrolls. There are times when personal expenditures rise, as during holidays, and there are times when payrolls rise to produce seasonal products. Certain individuals, businesses, and communities have their own periods when they need more or less cash than ordinarily. The net effect of all of these factors is a normal and regularly repeated cycle of demand for currency year after year—slack after the first of January, when retail trade falls off following the holidays; larger during the succeeding spring months, when payrolls increase and outdoor industries become active; slack again in midsummer; and steadily increasing during autumn and early winter to a regular peak at Christmas. These seasonal variations normally cover a range of as much as 400 million dollars in the course of a year.

In addition to the seasonal movements, the demand for currency also responds to increases and decreases in the dollar volume of trade and payrolls as the amount of business done by the country increases or decreases or as prices change. The demand for currency is also affected by the various considerations that determine the

[9] There are various statutory requirements as to conditions of issuance and redemption of, and as to reserves and collateral that must be maintained against, the different kinds of currency. Some of these are discussed in the following paper. The mechanism of currency operations of the Federal Reserve Banks is described in the paper "Operations of the Reserve Banks." The history of currency in this country is summarized in "Currency System of United States."

choice of individuals as to whether they hold their money in currency or on deposit with banks. Some of these considerations are distrust of the solvency of banks, convenience of banking facilities, service charges and other restrictions imposed by banks on checking accounts, amount of interest paid on savings accounts, and the desire for concealment of wealth or income. At times hoarding is an especially important factor in increasing the demand for currency. Changes in vault cash held by banks also affect the volume of currency reported in circulation.

In the course of a few weeks prior to the banking holiday in 1933 the Federal Reserve Banks furnished the public with as much as 2 billion dollars of additional currency, a large part of which subsequently returned. During the past ten years there has been a considerable increase in the holding and use of currency, with the result that the amount reported as in circulation early in 1940 was some 2.5 billion dollars greater than it was in the late 1920's. This amount is relatively small compared with the volume of bank deposits but is large in terms of its effects on bank reserves. This growth has been due to a number of factors, the more important of which have been: (1) the increased use of currency rather than bank deposits for current payments with the growth of service charges on deposit accounts; (2) the holding of savings in the form of currency; (3) the attempt for various reasons to conceal wealth or income by holding currency instead of bank deposits; and (4) the increased vault cash holdings of banks.

Neither the Federal Reserve Banks nor the Treasury have under ordinary circumstances any direct way of keeping in circulation a larger amount of currency than the public requires or of reducing the amount of currency that the public needs to finance its current operations. The Treasury may issue currency and use it to meet Government expenditures, but this operation does not necessarily add to the need for currency, and other types of currency in circulation are likely to decrease correspondingly. Any redundant supply of currency is deposited in banks, and by them in the Reserve Banks, which retire Federal Reserve notes by the amount of the redundancy. Currency is paid out by member banks or by the Reserve Banks only in exchange for something of equal value—

generally charges against deposit accounts. Any one having a deposit in a bank or able to obtain one may get currency. From the standpoint of the general public, deposits and currency are freely interchangeable; both are money. The amount of currency which the public is able to obtain from banks is, of course, limited by the amount of bank deposits or claims on such deposits which persons wishing currency have or are able to obtain. The ability of banks in turn to obtain currency depends on the amount of balances with Reserve Banks they have or can obtain by sale of assets or by borrowing. In general the upper limits imposed by these restrictions are far above the effective demand for currency, although in some cases they may be important.

Under the Federal Reserve System the amount of currency in circulation at a given time represents the part of its money which the public collectively wants to hold in the form of currency. Currency always moves out of the Federal Reserve Banks when the demand for it increases and returns to them when the demand subsides. This is what is meant by an elastic currency. The public—not the banks, the Federal Reserve System, or the Treasury—determines the amount of currency in circulation.

From the standpoint of the effect on bank reserves and, therefore, on the general credit situation, changes in the volume of currency have a special significance different from that caused by changes in deposits. When deposits are shifted from one bank to another or are used to repay bank loans, reserves may move from bank to bank but there is no decrease in the total supply of bank reserves. When deposits are withdrawn in the form of currency, however, some member banks must draw down their reserve balances. Unless they borrow from the Reserve Banks to maintain these balances, the total volume of bank reserves is decreased. Conversely a return flow of currency from circulation may increase bank reserves, as well as bank deposits. Additional issues of Treasury currency increase both bank deposits and bank reserves, because they provide the Treasury with new money to spend not obtained from the public by taxation or borrowing and provide the public with new money not obtained by borrowing from banks. Through such currency issues the Treasury exercises monetary powers independent

of those of the Federal Reserve authorities. Under existing law and practices these powers are used only for the purpose of acquiring gold and silver.

Because of their effect on bank reserves, changes in the volume of currency in circulation and in the amount of Treasury currency outstanding may have and at times have had an important influence on money markets and money rates. Prior to the establishment of the Federal Reserve System substantial increases in the demand for currency generally caused sharp rises in money rates, because bank reserves were drawn down. This was a usual occurrence in the autumn of each year. With their powers to extend credit directly to member banks or through the open market, Federal Reserve Banks may supply banks with currency or reserves as needed; they may also absorb redundant supplies of currency.

For over twenty-five years the Reserve Banks have met the normal demands of the country for currency; they have also fully met peak demands both in times of prosperity and in times of depression hoarding, and they have made it possible for the volume of currency to decline automatically when the public demand for it declined. They have by lending to member banks or by open-market operations to some extent offset the effect of changes in the volume of currency on bank reserves and thus have helped to stabilize money markets.

Expansion and Contraction of Bank Deposits. It has been seen that bank deposits comprise a much larger portion of the total money supply than currency, and that a much larger volume of money payments is made with checks drawn against bank deposits than with currency. The volume of bank deposits, moreover, in modern monetary systems may be more easily expanded or contracted than currency. This is because the banking system, in order to obtain a given amount of currency, loses a corresponding amount of reserves, whereas by lending and relending, the banking system can expand the same volume of reserves into many times that amount of deposits.

The fact that through banking operations the deposit money for the community can be expanded does not mean, however, that each individual bank can create the deposits it wishes to lend by

giving deposit credits on its books in exchange for customers' notes. A common misconception in this respect is responsible for much agitation against banks. The fact is that an individual bank can lend only money already on hand as cash or on deposit with other banks, or money which it is in a position to acquire by the liquidation of another asset or by borrowing from another bank. This is because the customer who borrows the money does so for the purpose of using it, and when he chooses to draw it out by withdrawing cash or by checking against his deposit, the bank must be prepared to supply cash, or to settle through the clearing house for a check deposited in another bank. As explained later, banks may count upon their losses of deposits being largely offset by gains from other banks, and, therefore, can often make loans in excess of immediately available resources, but this can not be true for all banks at the same time. It is also important to recognize that banks can expand credit only to the extent that they can find satisfactory borrowers or sellers of acceptable securities.

The way in which the process of deposit expansion works is shown graphically in the chart on page 314. The example shown is figured on the basis of present reserve requirements, which average for all member banks about 15 per cent.

Let us assume that a bank receives a new deposit of $15,000,000 arising, not out of a transfer of funds from another bank, but, let us say, out of an import of gold which adds to the reserves not only of the individual bank but of the banking system. This transaction is shown in the lower section of the chart on page 314 by the first solid black bar at the extreme left-hand side.

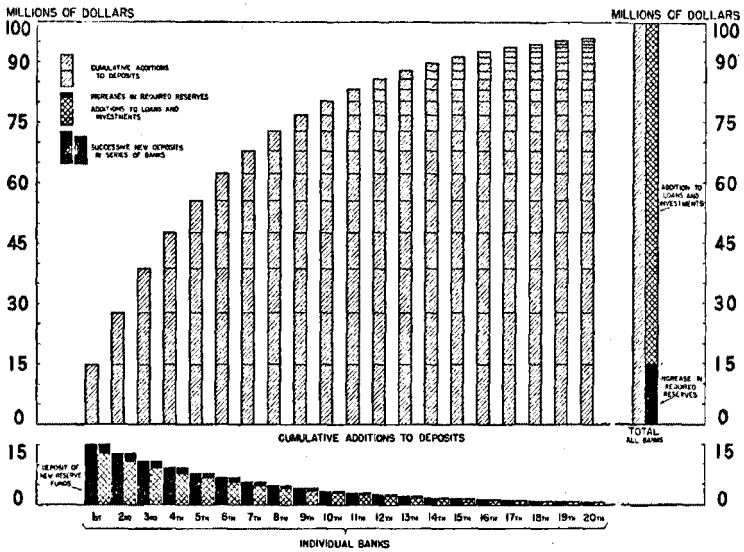
When the original depositor puts the $15,000,000 in the first bank he receives a deposit credit. He has exchanged his $15,000,000 in cash money for $15,000,000 of deposit money. But the bank is able to lend or invest a large part of the cash it has received from him. There are three conditions that enable it to do this: (1) banks in the early stages of their development found by experience that, on the average, a large part of the deposits brought to them in cash or checks is left with them for a considerable time; (2) the law requires a bank to keep only a portion of a deposit as reserves (assumed in the example to be 15 per cent) and it can, therefore, utilize the remainder (85 per cent in the example) to make loans and investments; and (3) in case withdrawals of deposits should exceed the funds held as reserves by the bank, it can turn to its Federal Reserve Bank and borrow enough to make up the difference.

Because of these three factors a bank, having given the original depositor

$15,000,000 in deposit money for his cash money, can proceed to lend someone else $12,750,000—i.e., $15,000,000 less 15 per cent. This amount of $12,750,000, together with the $2,250,000 of reserves retained by the bank, is shown in the second bar in the lower section of the chart—the loan by the cross-hatched area and the reserves by the small black area at the top. The borrower then has $12,750,000 in deposit money, or, if he prefers, in cash. The bank has, therefore, increased the amount of money by 85 per cent, from $15,000,000 to $27,750,000.

PROCESS OF DEPOSIT EXPANSION[a]

Illustrative Example on Basis of $15,000,000 of New Reserve Funds and Reserve Requirements of 15 Per Cent



The borrower, in turn, is likely to check or pay out his money: the fact that he has borrowed it proves that he needs it for some purpose. The persons in whose favor he makes out checks, or to whom he turns over the cash, then proceed to increase their bank deposits. For the purposes of this illustration we assume that the full amount of the loan, $12,750,000, is deposited in the second bank—illustrated by the second solid black bar on the chart. This bank receives the deposit and collects the checks through the clearing house, with the consequence that its deposits increase by $12,750,000 and an equal amount is added to its reserves. In case the deposits were in cash, the net result is the same. Then all the forces mentioned in connection with the first bank get into operation once more. The second bank, after giving a deposit credit of $12,-

750,000 for the checks or cash deposited with it by persons to whom the borrower from the first bank has turned over the proceeds of his loan, sets aside 15 per cent, or $1,912,500, as reserves, and proceeds to lend or invest the remaining $10,837,000. By this time the original $15,000,000 of money has been increased by $12,750,000 and $10,837,500 to a total of $38,587,500.

The first bank increased the original amount of deposits by 85 per cent, and the second bank increased the amount that was passed on to it by 85 per cent, and this process continues as an ever diminishing amount of the original deposit is passed on from one bank to another, until the amounts involved for successive banks become negligibly small. The process is shown for twenty banks by the series of solid black and of combined black and cross-hatched bars in the lower section of the chart.

In the upper section of the chart the long single-hatched bars represent the cumulative totals of all deposits that have been made in all banks as a result of the original deposit of $15,000,000 of reserve funds and the lending and relending of these funds. There has been at each stage a similar but somewhat smaller expansion of loans and investments, and there has always been a total of $15,000,000 of reserve funds; but for simplicity the cumulative totals of these for each separate stage have not been shown on the chart. The two bars at the extreme right-hand side of the upper section of the chart represent the cumulative totals of deposits and of loans and investments that may be built up by the whole process if carried to completion.

On the basis of the figures shown in the chart, the lending or investment of all funds not required for reserves results in about a seven-to-one expansion of deposits for the banking system as a whole, or a total of 100 million dollars in deposits and of 85 millions in loans and investments on the basis of 15 millions of new reserves. This means that every addition to reserves enables the banking system as a whole to supply the public with additional deposits many times the amount of new reserves.

Contraction of bank credit and deposits resulting from a reduction in the supply of reserve funds would operate in a similar manner. A bank whose reserves were reduced to or below its minimum requirements would be under pressure to withdraw balances from correspondents or to call loans and sell investments, and would thus draw money from other banks and force them in turn to contract. Contraction might be slower than expansion, because member banks short of reserves might prefer to replenish them by borrowing from the Reserve Banks rather than to liquidate outstanding loans and investments. Banks, however, have not generally liked to bor-

row, and when in debt they have usually been inclined to liquidate loans and investments in order to reduce borrowings.

For the sake of simplicity certain assumptions have been made in the example presented which do not correspond to actual experience. The discrepancies, however, do not change the general character of the process or impair the validity of the principle that, while an individual bank can generally lend or invest only such funds as it has, the banking system as a whole, through lending and investing, can expand a given amount of bank reserves to many times that amount of deposits. A statement of the principal assumptions, however, is necessary for accuracy.

One assumption is that the proceeds of the loan are completely withdrawn from the lending bank and deposited in another bank. In actual practice, it is not unusual for borrowers to maintain a part of the proceeds of a loan as a deposit with the bank; in fact, some banks require that a definite part, say 20 per cent, be maintained as long as the loan is outstanding. To this extent the bank which makes the loan and creates the deposit does not need to have funds available for withdrawal. It retains that amount of reserves and can use them to make another loan, just as another bank could have done had they been redeposited in it.

In the second place, even if the original borrower should withdraw all the proceeds of his loan, a part of the checks that he would draw might get into the hands of a depositor in the same bank. To the extent that checks are deposited in the bank against which they are drawn, that bank does not lose reserves but has disposable funds for additional loans and investments, just the same as another bank would have if the checks had been deposited in it. Also, a bank may count on gaining funds from other banks in the clearing process that will more or less offset its losses of deposits, and thus a bank may continue to make loans in excess of its immediately available resources and not run into difficulties. This may happen when banks in general have excess reserves and are expanding credit, but if the supply of reserves is limited some bank will find itself short and have to liquidate or borrow.

A more important difference in the way the procedure works in practice arises from the fact that there are different reserve require-

ments against different types of deposits and against demand deposits in different localities. The original deposit of cash may have been made on time and required only a 5 per cent reserve, whereas the resulting deposits may be on demand and require a 12, $17\frac{1}{2}$, or $22\frac{3}{4}$ per cent reserve, depending upon the reserve classification of the bank in which it was deposited. Or it may be the other way around. The percentage used in the example is an average—the ratio for all banks of total required reserves to all deposits subject to reserves—so that on the average, although not in individual cases, the situation would be approximately as outlined.

Perhaps the most important assumption made in the example, which does not correspond to the facts as they exist today, is the assumption that the bank will always lend or invest all the funds that it has available. The supply of reserves has been indicated as the factor determining the limits of the movement. It is not, however, the only or always the principal factor of change. The process is carried on by means of loans and investments, and banks, in order to expand available reserves into additional deposits, must be able to find borrowers to which they are willing to lend or securities that they are willing to purchase. Monetary theory, supported by past experience, has generally assumed that banks could and would always find uses for idle funds, but experience in recent years, when banks have held large amounts of reserves in excess of requirements, indicates that this is not always the case. In such circumstances the rate of expansion on the basis of a cash deposit would be much less than the possible maximum; in fact there might be no expansion at all.

Nor can it be assumed that a reduction in reserves will always result in a contraction in bank credit by the maximum amount; banks may prefer to replenish their loss of reserves by borrowing from the Reserve Banks rather than to liquidate loans or investments, particularly if business prospects seem favorable and there is a strong demand for loans at profitable rates. At times when the state of business is unfavorable and the credit standing of borrowers uncertain, banks are less willing to extend credit and more anxious in case they lose reserves to call loans or sell securities rather than borrow.

It follows, therefore, that expansion and contraction of bank credit and the money supply depends not only upon the volume of bank reserves but also upon the availability of suitable loans and investments and upon the standards of suitability followed by banks and by supervisory authorities.

The principal conclusion from this discussion is that an individual bank can not ordinarily lend or invest any larger amount of funds than it has in its possession or can borrow, but that the banking system as a whole, provided there is a sufficient demand for funds, can make loans and investments approximately six times as large as any additions that it may receive to its reserves. The extent to which banks will expand credit within this potential maximum depends on the availability of suitable loans and investments.

SUMMARY

Money is used for a variety of purposes, and the concept of money is not a simple one, nor is there a single definition that fits all the uses of the term. Figures for bank deposits, together with those for currency, provide the best measures of the functioning of banks in the monetary system. In any analysis of economic developments, however, consideration must be given to many other elements that influence the monetary system.

Banks not only hold money for the public but they also supply money by extending credit in the form of loans and investments, and these credits then take the form of bank deposits. Ability of banks to extend credit depends in part on the supply of basic or reserve money, which in turn is derived principally from gold, although it may also be supplied through the extension of Reserve Bank credit or through the issuance of currency by the Treasury. By lending and investing reserve funds the banking system may expand the volume of deposits to many times the supply of reserves.

It is not correct to assume that an individual bank by itself has the power to create money out of nothing and to use that money to its own profit. An individual bank can lend or invest in general only amounts equal to cash held in excess of required reserves, and the amounts actually put to use depend on the availability of suitable loans and investments. The banks receive interest on their earning

assets and from that must pay the expenses of running the banking system before having profits for stockholders.

The importance of supply, availability, cost, and use of money in the operation of the economic system and the effectiveness of the various instruments of monetary regulation are discussed in the next paper.

MONETARY CONTROLS

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Division of Research and Statistics

MONETARY CONTROLS

In preceding papers it has been shown that banks supply an important part of the money needed for the functioning of our economic system. Partly to insure convertibility into other forms of money and partly because of the potential effect of the issuance of currency and the expansion of bank deposits upon economic developments, limitations have been imposed by law and custom upon the exercise of these powers. Some of these limitations are mechanical in nature and fixed by statute, such as requirements as to convertibility, reserves, and collateral; some are discretionary, for instance, Reserve Bank credit policy and bank supervisory powers; and some arise outside the money system proper, for example, the demand for loans.

Much emphasis has been placed in monetary theory and sometimes in policies of public monetary authorities upon the supply of money, and the measurement of the money supply for these purposes has often been narrowly defined. The use that is actually made of money is a more potent economic force than the actual supply on hand, and while use may be influenced by the mere quantity of this supply it is also influenced by the availability and cost of new money and by many factors of a nonmonetary nature.

Economic well-being is determined by the flow and distribution of income, by the decisions of consumers and producers as to expenditures and savings. These decisions in turn are influenced by monetary and credit factors and also by factors of a nonmonetary nature, such as price and cost relationships, public and business confidence, industrial and labor policies, tax and other fiscal measures, weather, or war. At times monetary and credit controls may be decisive; at other times the various nonmonetary factors are jointly or separately decisive. For a smooth operation of the economy it is necessary that monetary and credit policies be flexible, and that they and other governmental and private policies and actions be

coordinated. Economic problems overlap and can not be effectively dealt with by action in any one field taken alone.

FUNCTION OF MONEY IN THE ECONOMY

Before discussing specific monetary controls this paper will deal briefly with the functions of money in our economy and the relationship that exists between the availability, volume, cost, and activity of money and other factors that affect the course of economic life. Then the influence of monetary control upon the operation of these factors will be considered.

It is a truism to say that money in itself is not an end but only a means to an end. However, because money can be converted into commodities and services and because it is used as a common denominator in measuring economic values, it is sometimes confused with these values and undue importance is often attached to the volume and behavior of money as a motivating factor in economic well-being. A more significant element in the economy than the supply and cost of money is the flow and distribution of income, which is largely dependent upon decisions of consumers and producers as to expenditures and savings.

National income, though generally expressed in terms of money, can either decrease or increase with no corresponding change in the existing supply of money or even in the face of a change in the opposite direction. For example, in 1939 the amount of money, no matter how measured, was larger than in 1929, but the national income was considerably smaller. National income represents the net money value of commodities and services produced by the nation's economic system.[1] The volume of money payments made in producing a given amount of national income may be made from a larger or a smaller stock of monetary units, depending on how many times the same units change hands in the course of the year.

A great source of confusion in discussions of this subject is the inclination to consider that two developments occurring at the same

[1] The word "net" indicates that the gross value of output of all commodities and services is reduced by the value of commodities consumed in the process of production. This definition is taken from Simon Kuznets, *National Income and Capital Formation, 1919–1935*, National Bureau of Economic Research, Inc., New York, 1937.

time or successively must necessarily have a causal relationship to each other. For example, it is true that, if you take all the goods, services, property, and other values that are paid for in the course of a year and multiply them by their price, and if you then add the value of those payments that can not be expressed in price-quantity terms, such as gifts, insurance payments, annuities, interest, etc., the figure thus obtained will equal the average volume of money outstanding times the number of transfers of that volume in the course of the year. But this does not mean that the volume of money or its turnover *determines* either the amount of goods and services that change hands or the price at which they are exchanged. There are many complex factors, physical, economic, and psychological, that determine the course of economic activity, the level of prices, and the volume of national income. Monetary and nonmonetary factors enter into the equation; neither necessarily determines the course of the other. They interact upon each other, and which at a particular period is predominantly a cause and which predominantly an effect depends on a whole series of complex forces that it is difficult and often impossible to disentangle.

It is not intended, however, to minimize the importance of money in our economy, which after all is a money economy in the sense that nearly all economic activities involve money and are measured by it as the common denominator. But money is only one facet of the economy and should be considered in its relationship to other facets. Nevertheless, it may be at times a powerful and controlling element, and it is the element for which monetary authorities have the primary responsibility.

Availability of Money. Perhaps the most important single concept in relation to money as a factor in the economy is availability. In order to make the commitments necessary for carrying on economic activity, persons engaged in commerce, industry, and agriculture must be assured that they can obtain the funds necessary to finance their operations. This is a more important causative factor than the volume of money. A business man in planning his operations, after considering prospective profitability, is guided not only by the amount of money that he has on hand, or on deposit, but also by his knowledge of what funds he may count on when the

need arises. His line of credit at the bank, his ability to raise funds in the capital market, his credit standing with the firms from which he must make purchases, the amount of readily marketable securities he owns, as well as his actual deposits in banks, measure the availability of money to him, and he makes his plans in accordance with his estimate of such availability.

There are no precise statistical measurements of the availability of money, but there are ways by which monetary authorities can exert an influence on it. The two principal factors determining availability are the ability and willingness of banks and of other holders of investable funds to make loans and investments, and the ability and willingness of the public to borrow from banks or in the capital market. The ability of banks to lend or invest can be influenced by monetary authorities in various ways—principally by increasing or decreasing available bank reserves, by taking steps to put banks into or out of debt, and by raising or lowering discount rates. It can also be influenced by the policies of bank supervisory agencies with regard to bank loans and investments. In a period of active business, availability of money can be influenced to a considerable extent by the authorities, and it is one of the functions of these authorities to encourage availability of money at times when the demand appears to arise out of the needs of production and distribution of commodities. When, on the contrary, the demand for money appears to arise from uneconomic speculative activity, monetary and banking authorities can use their influence to diminish the availability of money.

Volume of Money. Although the more significant purpose of policies pursued by monetary and banking authorities is to influence the availability of money, it is the volume of money in existence that indicates the extent to which money has actually been made available. Because the most important elements in the volume of money can be measured, while its availability can not, more attention is generally paid to volume.

The volume of money in existence at a given time depends in part on the supply of bank reserves and in part on the amount of loans and investments of banks, and this is true whether the money is in the form of deposits or of currency. The amount of currency

used by the public is much smaller than the amount of deposits, and the extent to which the public keeps its money in the form of currency or of deposits reflects the public's preference, which changes from day to day, from month to month, and from year to year. It is not a matter of primary importance under our present system. Both currency and credit reach the public principally through the banks and are largely represented at the banks by loans and investments. In recent years, however, increases in the money supply have resulted to a considerable extent from additions to the country's gold stock, in turn reflected in expanding bank reserves.

The way in which banks can increase or decrease the volume of money by making loans and investments was explained in the preceding paper. It is important to remember that the banks in this matter are only one of the parties to the transaction, the other being the borrowing public. Banks can be more or less willing to lend or to invest money, they can have preferences as to the amounts and character of their loans and investments, but they can make loans only when there are acceptable borrowers and they can purchase investments only when acceptable securities are to be had.

It is primarily through their influence on the willingness and ability of the public to borrow and on the safety of investment securities available for banks that nonmonetary factors influence the volume of money. At a time when employment is ample, national income is rising, and consumer purchasing power is large, there are plenty of good borrowers from banks and in the capital market. If the lending power of banks is ample they utilize it freely at such times and the volume of money increases. At a time when business prospects are poor, on the other hand, although the banks may have plenty of lending power, good borrowers may be less willing to borrow. Banks, moreover, may become apprehensive and begin to call loans and sell investments. Under such circumstances banks may be unable to find other acceptable loans and investments in sufficient volume to replace those repaid or sold, and the volume of money may diminish—even though banks have unused resources. The resulting decline in the volume of money may not only reflect but accelerate a further decrease in business activity and a general deflationary movement.

Cost of Money. A factor that may be important in determining the willingness of borrowers to obtain loans is the cost of money, i.e., the level of interest rates. The actual effect of the level of interest rates upon the volume of borrowing differs from time to time. Low interest rates will ordinarily encourage borrowing and high interest rates will discourage it. It is true that in actual experience the demand for loans is usually large when interest rates are high and small when rates are low, but this is because interest rates advance as the result of an active demand for loans pressing against the limits of the banks' lending capacity, and decline when the demand falls short of the supply.

It is generally true that a period of very high interest rates is followed by a business recession, while a period of low interest rates is likely to be followed by business recovery. This may be due in part to the restrictive or stimulating effects of high or low interest rates, but it also means that high interest rates are an indication of a tendency for business to over-expand while low interest rates reflect a contraction in activity—tendencies that are likely to change in the course of time. Much variation occurs in the length of time that low or high rates prevail before a turn takes place in the demand for loans. It is likely that difficulty in obtaining funds, that is, low availability, of which high interest rates are a result, is more important in restricting borrowing at the peak of a cycle than is the mere cost of borrowing, which is not an important limiting factor if large profits are in prospect. At the bottom of the cycle even exceptionally low interest rates are not an inducement to borrowing unless there are prospects for the profitable use of the borrowed funds. In other words, fluctuations in interest rates are the result of variations in the supply of and demand for loan funds, which in turn are likely to move in accordance with the state of business. The level of interest rates, however, has some effect upon business decisions as to the use of money and this effect is especially important in the field of long-term borrowing, such as mortgages and bond issues.

In recent years interest rates have been lower in this country than at any time in history. This has been accompanied by an abundance of funds available for lending and investing and a low

level of demand for loans. The principal acceptable borrower has been the United States Government. Short-term rates have declined much more sharply than long-term rates, and rates on readily marketable paper or on loans to borrowers with the highest credit ratings have declined more than those on the general run of bank loans to their customers. These widening differentials have been due primarily to the desire of banks and other investors to place their funds where they can be quickly converted into cash to take advantage of better opportunities for profitable investment if they should arise. Preference for short-term investment in a period of low rates is emphasized by the fact that a rise in rates results in a substantial decline in principal value of long-term obligations purchased at low yields. Bonds entered on the books at high prices would be subject to paper losses in case of a rise in interest rates. This situation has created problems for banks and for banking and credit authorities.

As a result of the low level of interest rates, or more particularly of the shortage of investment outlets relative to supply of funds seeking investment, the income of investors—individuals and institutions—has declined in the past decade, creating other problems. Although the low level of interest rates has not brought about a substantial increase in borrowing, it has no doubt been an influence working toward economic recovery. It has enabled the Government to finance its recovery program at relatively low costs. It has enabled corporations, particularly utilities, to refund outstanding indebtedness at lower interest rates, thus reducing their costs of doing business. The decline in rates on home mortgages, together with other reductions in financing costs that have been effected, has encouraged the buying and building of homes.

The possible effect of low interest rates if a substantial borrowing demand should develop will raise some questions. The problem of limiting the injurious effects of such a development is made difficult by the fact that low interest rates were largely brought about by the rapid expansion of bank reserves and deposits resulting from the large gold inflow and that these factors are hard to control under existing monetary powers.

Use of Money. Deposits as such may in effect not be money

in an active sense and may represent nothing more than funds hoarded by the owners. It can not be assumed that all bank deposits are considered or used as purchasing power by their owners or that the proportion so used remains unchanged. The total volume of money payments, that is, the turnover of money, is a more important measure of economic activity than the supply of money.

Turnover of money is the resultant of all the economic forces, monetary and nonmonetary, that determine the amount of spending and investing. Because of the importance of nonmonetary factors, turnover of money can not be controlled directly by monetary means in the way that the supply and cost of money can be controlled, although monetary policies and particularly the policies of banks as to their loans and investments may have an important influence on the extent and manner of the use of money. A full discussion of the various forces that determine the use of money and of how they operate is beyond the scope of this paper.

There are no exact measures of the turnover of money as a whole. In view of the relatively small amount of currency outstanding, much larger changes in its turnover than probably occur in practice would have little effect on the turnover of all money. Turnover of bank deposits may be measured by the amount of checks drawn against them, the figures for which are compiled and published under the title "debits to deposit accounts." The rate of turnover or velocity is computed by dividing the volume of debits in a given period by the average amount of deposits outstanding during the period. The resulting figure attempts to measure the extent to which deposits are used in transactions of all kinds, including many duplicate entries and transactions, arising out of goods or other values passing many times from hand to hand in the process of marketing or in the course of speculative activity.[2] Turnover of money meas-

[2] Debits figures used in this statement represent estimates of all transactions for which payment is made by check, including payments made for goods at various stages of the production and distribution process, payments for services, and financial transactions of various sorts, such as trading in securities, commodities, real estate, etc., loan repayments, and deposit shifts. In reporting debits banks are instructed to include all charges to accounts of individuals, partnerships, corporations, the Federal, State, and local governments, debits to postal and other savings accounts, payments from trust accounts on deposit in the banking department, and payments of certificates of

ured in this manner, when considered in connection with other information, may be a good indication of the development of unhealthy speculation. Such measures are, therefore, of value to monetary authorities.

Comparison of the volume of outstanding bank deposits in commercial banks with estimated total debits against these deposits and with national income by years from 1919 to 1939 is made in the upper section of the chart on page 333. The figures are plotted on a ratio scale so that equal vertical distances represent equal percentage changes, making it easier to compare relative changes. The figures for deposits differ somewhat from those for total deposits at all banks shown in the chart on page 304 in the preceding paper, for reasons explained in a footnote to the appendix table referred to in the accompanying chart.

Prior to 1926 debits in each year remained close to twenty times the average amount of deposits outstanding in the year, i.e., these deposits consistently showed a rate of turnover of about twenty times a year. In the same period national income was approximately twice as large as the amount of deposits and showed movements closely similar to those of commercial bank debits and deposits. From 1926 to 1929 debits increased much more rapidly than deposits, but national income rose somewhat less than deposits. Turnover of total deposits as measured by debits increased to about thirty times a year in 1929.

In the depression period debits declined most sharply and deposits least, and since 1933 deposits have increased faster than debits. As a consequence the rate of turnover of deposits declined sharply in the depression and has not increased since. In fact in 1939 it reached a new low level of less than fourteen times a year. National income has increased since 1933 more than either deposits or debits, but like debits, it has continued below the high levels of 1925–1930, while deposits have risen above previous maximum levels.

What is the significance of the fluctuations in these figures and

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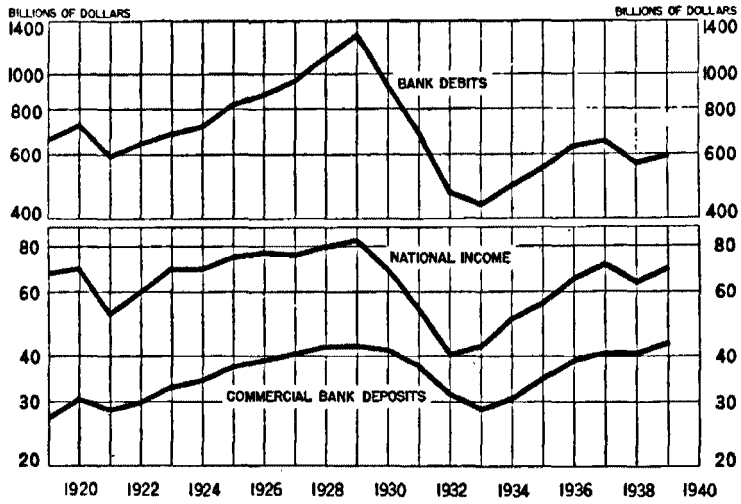
deposit. They are asked to exclude debits to the accounts of other banks or in settlement of clearing-house balances, payments of certified and officers' checks, charges to expense and miscellaneous accounts, corrections, and similar charges.

of their differences? The sharpness of the rise in debits in the late 1920's was primarily due to the effects of security market activity. Financial transactions, which as a rule involve large payments, comprise an important portion of debits, and changes in transactions of this nature are likely to have a marked effect on the volume of debits. This is illustrated in the lower section of the accompanying chart, which shows estimated rates of turnover of deposits in three different groups of commercial banks. From this chart it is evident that most of the sharp spurt in debits in the late 1920's was in New York City, where security market activity is largely concentrated. Banks in other places showed only moderate increases in turnover.

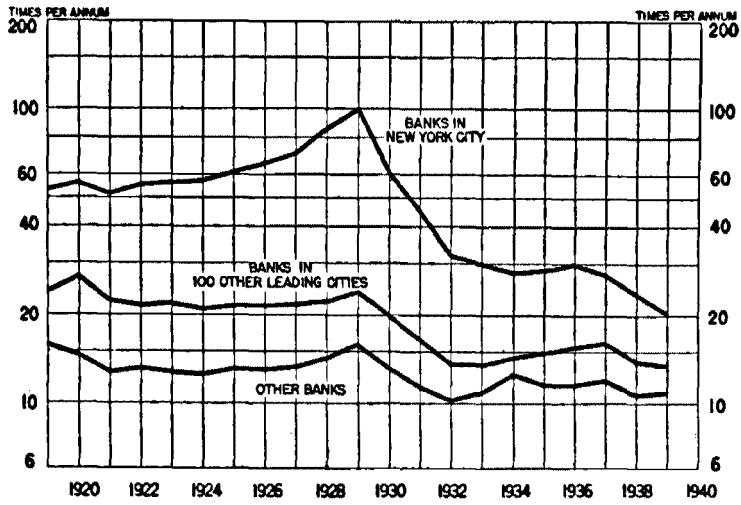
This development in 1928 and 1929 is an example of an economic force which was reflected in increased turnover of money, and was largely beyond the control of usual monetary and credit regulations. These regulations at the time were directed toward restricting bank credit expansion and resulted in raising money rates. In those years many corporations, investment trusts, and individuals had large amounts of available funds which they lent to brokers to finance stock-market margin accounts. The funds were paid by brokers to sellers of securities, who may have been corporations floating new issues or traders or investors taking profits or withdrawing from the market. These recipients in turn deposited the funds in banks or spent or reinvested them. The net result, simplifying the process somewhat, was a shift of bank deposits from one group of holders to another. These transactions did not result in an increase in bank credit and, therefore, none in bank deposits. The effect on the use of money, however, was the same as if the brokers had borrowed from banks, while the other lenders held their funds idle. When the money was lent on call to brokers, it was still available to the lending corporations and investors almost as readily as if it were on deposit in a bank, because the loans could be called for almost immediate payment at any time. Had no other lenders been available, New York City banks would presumably have taken over the loans. In fact they did just that during the stock-market break in October 1929 and in subsequent months, when nonbanking lenders withdrew funds from the market. In this case economic forces made an exist-

National Income and Volume and Turnover of Bank Deposits[a]

1. Volume of National Income and of Bank Debits and Deposits



2. Rate of Turnover of Bank Deposits



[a] For data, see Table 31, p. 453.

ing supply of bank deposits turn over more rapidly to do the amount of business required; the same result could have been achieved by a larger volume of money turning over less rapidly.

Declines in turnover of deposits after 1929 were greatest in New York City but were pronounced elsewhere, falling generally to new low levels. It is significant that during recent years of business recovery rates of turnover outside New York City have increased somewhat from the lowest levels of depression years, although remaining lower than in the 1920's, while in New York City the rate of turnover of deposits has continued to decline.

This continued decline in rate of turnover of deposits in New York City reflects in part the substantial decrease of activity in financial markets during the past decade. Another factor of considerable importance is the accumulation of large idle balances in New York City. Demand deposits, other than interbank balances, in New York City banks exceeded 8 billion dollars at the end of 1939, whereas in 1929 they amounted to less than 5 billions. Many of these deposits represent large bank balances being held by corporations, institutional investors, and individuals, including a large number of foreigners, until satisfactory outlets for investment or other uses are found. In other words, deposits which under existing circumstances have exceedingly low rates of turnover comprise a large proportion of existing deposits in New York City banks. To a smaller extent the same is true of banks in other cities, while in many rural regions the volume of deposits is still somewhat smaller than in the 1920's, and these deposits are almost as active as in the earlier period.

OBJECTIVES OF MONETARY REGULATION

Efforts to regulate the supply, the availability, and the cost of money, and to some extent the way it is used in extending credit, are the direct concern of governmental monetary and banking authorities. The principal monetary function of the Federal Reserve System is to see that banks have adequate reserves to supply the public's legitimate demands for money and to restrain banks from supplying excessive demands. Through the use of monetary and credit powers that influence the volume of reserves and the cost of

borrowing additional reserves, limitations may be placed on the availability and cost of money, and through the use of various supervisory powers both the availability of money and the uses to which it may be put can be influenced.

Early laws and regulations pertaining to money and banking were directed largely toward maintaining the convertibility of one form of money into another more universally acceptable form. This objective required attention to the amount of reserves and collateral back of currency and to the adequacy of assets behind the notes and deposits of individual banks. In the course of time, however, convertibility has become a less important objective of monetary regulation, and broader economic aims, expressed through regulation of the supply, availability, and use of money, have become dominant. These aims require attention not only to individual banks but to the operation of the banking system as a whole and also to nonmonetary developments.

Under customary rules of convertibility paper currency is generally convertible into metallic coin, and bank deposits are convertible into currency. Although the primary purpose of these rules is to protect holders of currency or deposits against eventual loss, they have also had important supplementary effects. Through making different kinds of money more universally acceptable and placing limitations on expansion, they have influenced general economic developments, as well as helped to further their original purpose.

Limitations imposed by rules designed to assure convertibility, however, are not necessarily suited to the broader objectives of economic policy and have at times operated in conflict with more desirable aims. Convertibility of currency into gold, for example, is not needed from the standpoint of domestic uses of money, as long as other forms of money are sound. Gold is of primary importance for purposes of settling international balances, and the use of gold domestically might at times interfere with its need internationally. Since 1933 all the gold stock in this country is held by the Treasury, and gold is released only for export. Gold—newly produced or imported—is readily convertible into dollars at what has been for practical purposes a fixed price, and for international usage dollars may be converted into gold at approximately the same price.

It is essential for the smooth functioning of our monetary system that bank deposits be both convertible into currency and readily shiftable from one bank to another. These privileges of depositors are safeguarded by established standards of banking practice, as well as by rules and regulations as to bank assets, which endeavor to assure the ability of individual banks to exchange these assets for currency or for claims on other banks. The quality of bank assets and the ability of banks to liquidate them, however, depend not only upon the wisdom of individual bank managers and supervisors but also upon economic conditions over which these individuals have no control. Action on the part of banks, taken as a whole, in either expanding credit or in liquidating assets has an important bearing on the general economic situation, and it is necessary that such action either be directed toward broadly desirable ends or that its effects be offset by other action. The aims of monetary regulation are, within limits of its powers, to safeguard the soundness of the monetary and banking system, and to direct the activities of that system along lines that will promote the attainment and maintenance of a high degree of national well-being.

INSTRUMENTS OF MONETARY REGULATION

The principal instruments of monetary regulation include rules as to collateral, control over the availability of reserves, the fixing of discount rates on borrowed reserves, and restrictions on the types of loans and investments that banks may make. One of the simplest and most direct forms of limiting the issuance of any form of money is to fix by rule or statute an absolute maximum that may be issued, but this type of limitation is not widely used.[3]

Some of these instruments are more or less absolute restrictions imposed by statute; some are exercised through regulations issued under legal authority upon discretion of regulatory agencies; while others are largely matters of current actions based upon policy decisions. Absolute rules imposed by statute as to issuance of money or extension of credit have at times proved to be unsatisfactory.

[3] The only actively circulating money so limited by law in this country is United States notes—so-called greenbacks—and they may, as a result of recent legislation, be expanded under certain emergency conditions.

They have often failed to serve as restrictions at times when undue expansion was in process and have been unnecessarily restrictive when contraction was not wanted. For this reason there has been a growing tendency toward vesting discretionary powers with responsible authorities.

Collateral Requirements. Issues of currency are generally required by law to be backed by certain collateral and often also by fractional reserves in the form of more basic money. Bank deposits are also in effect backed by collateral consisting of the assets of the banks.

The principal types of currency that the Treasury may now issue are gold and silver certificates. Against these notes the Treasury is required to hold a corresponding amount of the respective metals, valued at statutory prices. The amounts of gold and silver certificates actually issued correspond closely to the values of gold and silver purchased by the Treasury.[4] Collateral requirements in these cases serve the useful purpose of limiting the amount of Treasury currency that is issued to the amount of gold and silver acquired by the Treasury.

Federal Reserve notes, which are issued by the Board of Governors through the Federal Reserve Agents at the twelve Reserve Banks, are required by law to be backed by 100 per cent collateral. This collateral must be in the form of gold certificates, eligible paper representing advances to or discounts for member banks, bankers' acceptances, or, under a temporary provision of the law, United States Government obligations. Gold certificates deposited as collateral may at the same time be counted as reserves required against notes, but not as reserves against deposits.

Collateral requirements for Federal Reserve notes were originally intended not only to serve as a safeguard against over-issuance of notes but, through their inter-connection with eligibility requirements, to act also as a limitation on the type of paper against which

[4] The statutory prices of gold and silver, the relation of statutory and market prices for silver, and the procedures for issuing gold and silver certificates are discussed in the immediately preceding paper, as well as in "Currency System of United States." The latter paper also describes the collateral and reserve requirements of other forms of United States currency.

member banks could borrow at the Reserve Banks, and thus indirectly to influence member banks in their lending policies. That they have not served this purpose will be explained later.

Statutory requirements as to collateral for currency have at times proved unduly restrictive. National bank notes, which before the Federal Reserve Act were the principal element in our currency system that could be expanded or contracted, could be issued only against United States Government bonds as collateral. The limited supply of such bonds prevented expansion in the issuance of currency when additional money was demanded by the public. The Federal Reserve Act provided for the issuance of an elastic currency in the form of Federal Reserve notes, but the collateral requirements of the act as first passed placed limitations on the issuance of these notes that had no relation to the public's need for currency.

Late in 1931 and early in 1932, when a gold outflow and currency hoarding reduced bank deposits and reserves and increased the amount of Federal Reserve notes in circulation, these collateral requirements for notes limited the ability of the Reserve Banks to relieve the pressure on member banks through open-market operations. Had the Reserve Banks bought Government securities and thus enabled member banks to reduce their indebtedness, which provided eligible paper to be used as collateral against notes, then it would have been necessary to substitute gold as collateral, and there might not have been sufficient gold to serve this purpose, to provide reserves against deposits, and to meet further possible export demands. The Glass-Steagall Act passed in February 1932 temporarily permitted the Reserve Banks to pledge Government securities as collateral for Federal Reserve notes and thus removed the difficulty; this permission has been extended from time to time by subsequent legislation.

Since individuals may by borrowing, or by selling securities to banks, obtain in return claims payable in currency, it seems reasonable that banks should be able to borrow against these assets to obtain currency and that the Reserve Banks in turn should be able to issue a sufficient amount of notes to supply these demands without having to restrict credit. Although reserve and collateral require-

ments for Federal Reserve notes continue to be more restrictive than rules as to loans and investments that banks may make, it can be said that, with the Reserve Banks' large gold reserves and increased lending powers, member banks with sound assets could at present obtain from the Federal Reserve Banks currency enough to pay off all their deposits.

Reserves and Reserve Requirements. In most money systems it has been customary for the issuers of money, other than coins, to maintain a reserve in money of a kind considered to be basic or more acceptable—generally a unit fixed by law as the standard. During the past half-century or more the principal basic reserve in most countries has been gold. In the United States, as explained, member banks are required to hold balances with Federal Reserve Banks as reserves against their deposits, while the Federal Reserve Banks in turn hold against their deposit and note liabilities reserves consisting principally of gold certificates, which are direct claims on gold in the Treasury. The difference between the supply of reserves held and the amounts required to be held and the ability to obtain additional reserves when needed are important factors in influencing credit expansion and contraction.

Reserves of Federal Reserve Banks. The supply of Federal Reserve Bank reserves is primarily dependent upon the size of the monetary gold stock, or more precisely upon that part of the gold stock against which the Treasury has issued gold certificates. Changes in the gold stock in turn reflect largely domestic gold production and the country's balance of international payments. Practically the only discretionary instrument for regulating the supply of Reserve Bank reserves is Treasury action with respect to the issuance of gold certificates against gold acquired. In 1937 and 1938 the Treasury followed the policy of not issuing gold certificates and of paying for gold acquisitions by borrowing in the market. This action sterilized the gold in its effect upon bank reserves. Treasury issues of silver certificates or other forms of currency may have the effect of increasing the non-gold reserves of the Reserve Banks, but these reserves are minor. In practice the Reserve Banks generally pay out such currency into circulation in lieu of Federal Reserve notes. Member banks can not

in any way, other than through gold imports or exports, control the amount of reserves held by the Federal Reserve Banks.[5]

It is often thought that one of the purposes of reserve requirements for Federal Reserve Banks is to place limitations on the potential expansion of Reserve Bank credit. It is true in principle that the ability of the Federal Reserve System to extend credit or to meet gold drains is limited by the amount of gold certificate reserves held in excess of reserve and collateral requirements, and at times in the past this limitation has been of some practical importance. The need for such a limitation, however, may be questioned. Nations have found it necessary to apply other standards of control over domestic monetary and credit policies than solely the quantity of gold on hand. When a country has an abundance of gold the possibility that gold may be demanded to meet international payments at some time in the future is not likely to be a restriction on excessive expansion of money. When there is a scarcity of gold, on the other hand, strict requirements as to gold reserves may be unduly restrictive from the standpoint of domestic considerations. Ability to convert domestic money into gold is important for the purpose of meeting international movements of funds, but a country's gold stock is not necessarily an arbiter of domestic monetary requirements.

The Reserve Banks might at some time, as have central banks in many other countries, find themselves with inadequate reserves and be forced to contract credit even though contraction at that time were not desirable. This possibility is at present of only theoretical importance, because the supply of gold reserves held by the Reserve Banks is greatly in excess of requirements. Federal Reserve notes in circulation and reserve deposits could be more than doubled on the basis of present gold reserves. Under these circumstances the reserve requirements are not a limitation on the power of the Reserve authorities to issue currency or to extend additional Federal Reserve Bank credit and thereby create new reserve funds. The practical limitation on the first of these powers is the public's demand for cur-

[5] The relation between member bank deposits with Reserve Banks and the reserves and lending power of the Reserve Banks is discussed briefly in the preceding paper, "Money System of United States"; see especially footnote 7, p. 307. It is discussed more fully in the paper "Public Nature of the Reserve Banks."

rency and on the second is the policy that the Reserve authorities find it advisable to follow in the public interest.

Member Bank Reserves. Banks belonging to the Federal Reserve System must maintain with Federal Reserve Banks balances of not less than stated proportions of their deposit liabilities.[6] As explained in the preceding paper, when an individual member bank obtains a deposit of new reserve funds, it leaves a portion of it as a reserve balance with its Federal Reserve Bank and is free to lend or invest the remainder. The more a bank can lend or invest the greater will be its profits. Banks, therefore, generally endeavor to keep employed all funds available to them. As long as banks follow this policy, control over reserve requirements and the supply of reserves may serve as a limitation on expansion of bank loans and investments.

Banks' reserves are, therefore, the principal medium through which Federal Reserve authorities exercise their policies to accelerate or retard credit expansion. These policies may be exercised, within limitations, by increasing or decreasing the supply of reserves, by changing requirements as to the amount of reserves that must be maintained, or by changing the rate of interest charged on borrowed reserves.[7]

Although their relation to credit expansion and contraction is today considered to be the major function of bank reserves, they still serve to some extent their original purpose of protecting depositors. This is because reserves are readily convertible into other forms of money at their face value, whereas other assets may depreciate in value, particularly if banks find it necessary to liquidate them under adverse conditions. The percentage of deposits covered by required reserves, however, is for most banks not sufficiently large to be a major factor of safety.

In recent years, member bank reserve balances have grown so rapidly with the inflow of gold, and at the same time satisfactory

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[6] The actual percentages of reserve requirements were given in footnote 2 on p. 300 of the preceding paper. For a brief discussion of the history and purpose of reserve requirements and of the function of reserves, see the *Annual Report of the Board of Governors of the Federal Reserve System*, 1936, pp. 16–21.

[7] The ways in which the Federal Reserve authorities use the various instruments of monetary policy are discussed in other papers in this volume, particularly in "Instruments of Federal Reserve Policy."

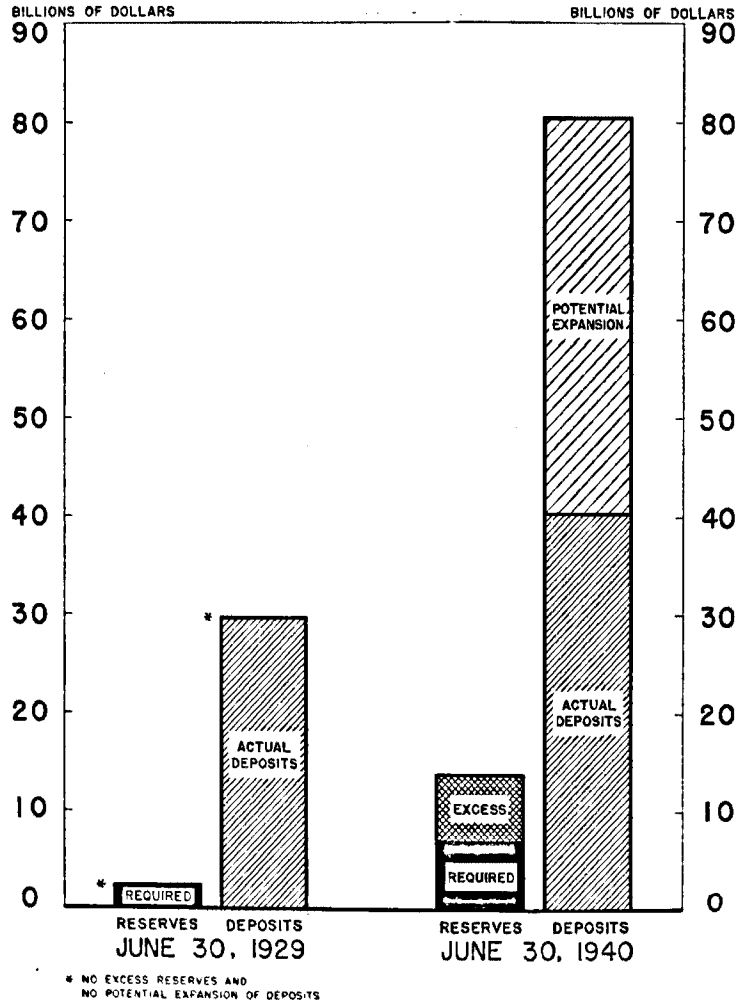
loans and investments have been so limited, that banks have not followed the policy of investing all available funds. As a result banks hold tremendous amounts of excess reserves. Member bank reserve balances and deposits outstanding in June 1929 and June 1940 are compared in the accompanying chart. The deposit figures have been adjusted to eliminate duplications resulting from interbank transactions and do not correspond precisely to the deposits against which reserve requirements are computed. The bar for reserves in June 1940 has been divided into two sections—the lower representing the amount of reserves that member banks were required to hold against their deposits, and the upper representing excess reserves available for further credit expansion. There has been superimposed on the bar showing deposits for June 1940 an area indicating the additional expansion that could take place on the basis of the existing volume of excess reserves, of their current distribution among different classes of banks, and of present reserve requirements.

It will be noted that in 1940 member banks had nearly 14 billion dollars of reserve balances, compared with 2.4 billions in 1929. Practically all of the balances held in 1929 were required against the 30 billion dollars of adjusted deposits at these banks, and member banks had practically no excess reserves available for further credit expansion. In fact at that time they were borrowing about a billion dollars from the Federal Reserve Banks in order to maintain their reserves at the required level. In June 1940, on the other hand, only half of the total of member bank reserve balances were required against 40 billions of adjusted deposits, leaving excess reserves that could provide the basis for a doubling of the already large volume of member bank deposits. This computation does not include the increase in deposits that could occur at nonmember banks indirectly on the basis of these same reserves.

It is clear that at present reserve requirements do not act as an effective limitation on the expansion of bank credit and deposits. The real limitation is the availability of loans and investments satisfactory to banks. When, however, conditions again become favorable for an increase in banks loans and investments, there will be no effective means, under existing law, of exerting through reserves a restraining influence over a possible injurious credit expansion.

It may be seen that, although bank reserve requirements provide a way of exercising an influence over expansion of bank credit, fixed

MEMBER BANK RESERVES AND DEPOSITS, 1929 AND 1940



and unchanging reserve requirements may not always be in accordance with economic needs. It is necessary to be able to vary the

supply of reserves that banks have in excess of requirements. Federal Reserve authorities, therefore, have the power to increase or decrease bank reserves by lending or by open-market operations when necessary in the public interest. They also have power to change the reserve requirement percentages within prescribed limitations and thus to increase or decrease the portion of existing reserves that is available for credit expansion by banks. This power, under existing provisions of law, has been used almost to its fullest by increases in reserve requirements made by the Board of Governors in 1936 and 1937 and, therefore, is not sufficient to absorb the existing large volume of excess reserves.

Nonmember Bank Reserves. Banks not members of the Federal Reserve System are subject to a variety of reserve requirements imposed by the laws of the different States.[8] In most States these requirements are somewhat smaller than the present increased requirements for member banks, especially when it is considered that nonmember bank required reserves may include cash in vault and balances with correspondents, which are held to some extent by all banks regardless of reserve requirements.

Although there is no single central authority exercising control over the reserve requirements of nonmember banks, the supply of reserve funds available to these banks is derived to a large extent from the same sources as member bank reserves—that is gold, Treasury currency, and (indirectly) Reserve Bank credit. In addition nonmember banks may obtain reserves by borrowing from other banks, and the only control the Reserve authorities have over this practice is through restrictions on the lending power of member banks. Reserves of nonmember banks may also be increased by transfers of deposits from member banks. On the basis of such funds, nonmember banks may expand their loans and investments, thus contributing to the pyramiding of deposits for the banking system as a whole.

Discount Rates. Traditionally the discount rate of the central bank has been the most familiar instrument of monetary regulation.

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[8] A summary of State laws relating to bank reserves was published in the *Federal Reserve Bulletin* for March 1937.

This is the rate of interest charged by the central bank for borrowed reserves. Any member bank may borrow from its Federal Reserve Bank by rediscounting the notes of customers or by discounting the Bank's own note secured by Government securities or by other paper as collateral. The latter method is simpler and is more commonly used. The loan is paid off as soon as the bank has adequate reserve funds or is renewed if necessary.

When member banks are borrowing heavily, an increase in discount rates places a heavier penalty on such borrowing while a decrease in rates lowers the cost. It is difficult to determine the effectiveness of discount rate changes, because of the fact that borrowing in itself is disliked by member banks and they are inclined to take measures to get out of debt regardless of the discount rate charged. In recent years during which member banks have had excess reserves and, in general, have not needed to borrow, the Reserve Bank discount rates have been largely inoperative.

Restrictions on Bank Loans and Investments. The amount of possible expansion in bank deposits is limited by the availability of acceptable loans and investments for banks, as well as by reserves. In a sense loans and investments, together with reserve balances and other assets, may be considered as collateral against deposits. Since under our present monetary system bank deposits comprise the most important part of the money supply, and bank deposits are expanded and contracted as a result of changes in bank loans and investments, restrictions on the types of loans and investments that banks can make may at times serve to prevent excessive monetary expansion.

Regulation of bank assets can affect the quality as well as the quantity of bank credit. In other words the regulations might be designed to safeguard the soundness of individual banks and to insure their ability to meet demands upon them, and also they might be directed toward preventing banks in large numbers from making loans and investments of a speculative character in excessive amounts. Thus such regulation might be employed to safeguard the economy as a whole against effects of injurious credit developments.

Requirements of the Federal Reserve Act as to paper that may be used by member banks for borrowing at the Reserve Banks represent

an indirect attempt to impose standards on individual member banks as to loans and investments. Some influence over bank lending and investment practices has also been exerted through standards imposed by bank supervisory authorities. This form of regulation operates not only through direct prohibitions but also indirectly by influencing the lending and investment policies of the bankers themselves. Another specific device for regulating bank loans is margin requirements; these are now imposed by the Board of Governors on certain classes of security loans, under authority of the Securities Exchange Act of 1934. By raising margin requirements the amount of borrowing to finance stock-market speculation may be restricted.

Eligibility requirements as to paper that may be used by member banks for borrowing at the Reserve Banks have not been particularly restrictive in times of favorable business conditions when expansion was occurring. At such times banks have had an adequate supply of eligible paper to satisfy any borrowing they might need to do and have felt free to place other funds in loans and investments not eligible as a basis for borrowing at the Reserve Banks. In June 1929, for example, when member banks were borrowing substantial amounts, they had loans eligible for rediscount at Federal Reserve Banks amounting to about four times their borrowings. Eligible paper comprised about one-eighth of total loans and investments, and United States Government obligations, on which banks could also borrow, comprised another eighth. Thus eligibility requirements neither prevented a large volume of borrowing nor restricted bank credit to eligible paper.

When banking difficulties developed during the depression, however, and banks needed to borrow substantial amounts to meet deposit withdrawals, a number of member banks exhausted their supply of assets which met the requirements as to eligibility and were unable to borrow from the Reserve Banks. Another agency—the Reconstruction Finance Corporation—was set up in part for the purpose of making loans to banks. Not only nonmember banks, which had no access to the Federal Reserve Banks, but also member banks borrowed from this Corporation.

It was because of experience in these periods that the Banking Act of 1935 authorized the Reserve Banks to lend to member banks on

any sound assets. Under this amendment the Board in 1937 issued a revision of its Regulation A, which provided for broader rules as to loans by the Reserve Banks. At the same time the Board stated that the guiding principle underlying the discount policy of Federal Reserve Banks should be the advancement of the public interest. In times of business recession a liberal extension of credit to member banks may be desirable, but when credit expansion is proceeding at a rate that calls for restraint, the Reserve Banks should be less liberal. Lending by the Federal Reserve Banks should not be automatic but should be used as an instrumentality of the System's general credit policy. In deciding upon their discount policy the Reserve Banks are expected to take into consideration the general business situation as well as the general conduct and management of the applying bank.

Fixed and automatic rules regarding types of bank loans and investments can be unnecessarily restrictive. It is important that high standards of soundness of credit be maintained, but rigid rules, imposed either by supervisory authorities or by bank managers themselves, as to *form* of paper that banks may hold do not necessarily insure soundness and may at times be unduly restrictive. These rules, for example, may not prevent excessive expansion of particular types of loans, which are individually sound but which if made by many banks at the same time might lead to broad economic difficulties—examples are found in the expansion of brokers' loans in the late 1920's and in that of commercial loans in 1919. Or these rules may prohibit loans or investments of types that have furnished difficulties in the past because of over-extension or broad economic collapse, but which under other conditions and in moderate amounts are perfectly sound. Current credit standards too often represent hindsight without consideration of changed or changing situations. In 1938 the Federal bank supervisory authorities adopted a revised and uniform examination procedure and new rules as to loans and investments of banks, which were designed, without lowering standards of quality, to modify rules and policies that had previously *unnecessarily* restricted banks in making *sound* loans and investments.[9]

[9] See also "Policy and Procedure in Bank Examination."

DISCRETIONARY POLICIES OF FEDERAL RESERVE AUTHORITIES

In view of the difficulties that have arisen from the imposition of fixed and automatic restrictions on the issuance of money and extension of credit, control of these matters has come to be vested with responsible governmental authorities that are permitted to exercise a degree of discretion in the use of their powers. In order to provide for changes constantly taking place in an evolving economy, it has been recognized that monetary policies should be flexible and that bank supervisory authorities should be permitted a considerable amount of discretion in the exercise of their functions.

The Federal Reserve System was established twenty-seven years ago for the purpose of furnishing a greater degree of flexibility in our monetary system. The form of banking structure existing at that time was not changed; the new System was imposed on that structure. The Federal Reserve authorities were given new powers of regulation over monetary developments in this country and certain automatic safeguards were imposed on the use of these powers. The Federal Reserve Act, through implication as well as through specific language, also clothed the Reserve authorities with broad discretionary powers that could be exercised in regulating the supply, availability, and cost of money. These discretionary powers, as implemented in policies adopted by the Federal Reserve authorities, have had to be used more often than the automatic restrictions imposed in the act. The latter, as shown, have often been completely ineffective in time of need and have sometimes been unduly restrictive when there was no reason for limiting credit expansion.

In the quarter century of their history, Federal Reserve authorities have had to adjust their policies to deal with many diverse problems. These have included the financing of the World War and the resulting inflation and post-war recession; the stock-market boom of the late twenties; the prolonged business depression of the early thirties, with its gold outflow, emergency currency demands, insolvent banks, and banking holiday; and then the gold inflow of recent years with excess reserves, idle funds, and increased bank holdings of long-term bonds bought at rising prices. At the present time war once more is creating new problems. Each epoch in the

System's history has called for a new focus of policy. Responsibility for the exercise of flexible policies vested by Congress in the Federal Reserve authorities has made possible some adjustment of policies and instruments to these changed situations.

SUMMARY

Various restrictions have been imposed by law and custom upon the exercise of monetary functions. Experience has indicated that monetary regulation must be flexible to permit adjustment to constantly changing economic conditions. Whereas many rules are fixed by statute, growing use has been made of discretionary powers exercised by responsible public authorities.

Mechanisms of regulation need to be related and adjusted to the various ways in which money affects the economy. Regulation has been directed to a large extent toward controlling the volume of money, but the economic effectiveness of money depends more largely on the use that is made of it. Use of money is affected not only by supply of money but also by its availability and cost and by many factors of a nonmonetary nature. Changes in the volume of production and income and in the level of prices are determined by the spending and investment policies of businessmen and the general public. These policies are influenced by both monetary and nonmonetary factors. At times monetary factors have been more important, and policies of banking and credit authorities have been more effective than at other times. It is necessary at all times that monetary policies and other governmental and private policies and actions be coordinated, because they all affect the flow and distribution of national income.

In recent years the money supply has been the largest on record, with ample funds available to satisfactory borrowers, and interest rates have been at the lowest levels in history. Commodity prices, however, and the flow of goods and services through the channels of production and distribution remained below previous levels.

Under these conditions factors of a nonmonetary nature are more important determinants of the level of national income than are monetary factors. It should not be forgotten, however, that in some circumstances monetary action can be effective and will be needed to

exercise proper controls. Constant study of the factors involved, the maintenance of effective powers of control, and cooperation between authorities responsible for monetary and for nonmonetary policies are necessary prerequisites for achieving a stable and rising level of economic well-being.

WORK OF THE BOARD OF GOVERNORS

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Carl E. Parry
Chief
Division of Security Loans

WORK OF THE BOARD OF GOVERNORS

The Board of Governors of the Federal Reserve System is both a distinct part of the Federal Reserve System and a distinct part of the Federal Government, and it is in this twofold capacity that the Board carries on its work.

Unlike the commercial banks and the Reserve Banks whose operations have been described in other papers in this volume, the Board is not a corporation and does no banking business; it has no capital, accepts no deposits, makes no loans. Consisting of seven members appointed by the President and confirmed by the Senate, the Board is not an agency of the member banks or of the Reserve Banks but an agency of the Federal Government. Being an independent establishment, however, the Board is not a part of the Treasury or any other Government department. It reports directly to Congress. The funds by which it is supported are derived not from Federal appropriations but from assessments levied on the Reserve Banks.

Comprehensively considered, the work of the Board includes not only that of the Board acting as a whole but also that of its individual members, its staff, and its official statutory representative at each of the twelve regional Reserve Banks (the Chairman and Federal Reserve Agent). It does not include the work done by the Federal Reserve Banks or, except to the extent that members of the Board and its staff participate, by the Federal Open Market Committee.

The purpose of the following statement is to give, from the administrative point of view, a summary analysis of the principal responsibilities of the Board and a brief description of the work that is done by the Board's organization to discharge these responsibilities.

ORGANIZATION OF THE BOARD AND ITS STAFF

Legislation enacted in 1935 provides that each member of the Board shall hold office for a term of fourteen years. Until this leg-

islation becomes fully effective, however, appointments for shorter terms are to be so made by the President that not more than one will expire in any two-year period. Two of the members of the Board are designated by the President to serve, for terms of four years, as Chairman and Vice Chairman. It is the statutory duty of the Chairman, subject to the Board's supervision, to be the Board's active executive officer. Every member of the Board is required by law to devote his entire time to the work of the Board, and may not while in office be an officer, director, or stockholder of any banking institution. All the members of the Board, in their individual capacities, are members of the Federal Open Market Committee, a statutory policy making body (discussed elsewhere) which includes in addition five representatives of the Federal Reserve Banks. By action of the Committee, three of the members of the Board, including the Chairman, are members of the standing subcommittee of the Federal Open Market Committee that is known as its executive committee, and the Chairman of the Board is Chairman of the Open Market Committee and of its executive committee.

The regular staff of the Board includes altogether about 425 persons, most of whom are members of one or another of the seven administrative divisions into which the staff is divided. These seven administrative divisions are as follows: Office of the Secretary; Office of General Counsel; Division of Research and Statistics; Division of Examinations; Division of Bank Operations; Division of Security Loans; and Office of Fiscal Agent.[1] Several members of the staff of the Board—including its Secretary, its General Counsel, and the Director of its Division of Research and Statistics—are in addition, by action of the Federal Open Market Committee, members of the staff of the Committee.

The offices of the Board of Governors include, first, its principal office, which is required by law to be in the District of Columbia and is in fact in the Federal Reserve Building in Washington, and, second, its offices on the premises of the twelve Reserve Banks located in important cities throughout the country. The Federal Reserve

[1] A condensed statement of the principal functions of each of these divisions is given in the appendix, pp. 467–69.

Building is the place where meetings of the Board are held, where the Board and its staff are located, and where the activities of the Board's organization are centered. So are meetings of the Federal Open Market Committee, which are required by law to be held in Washington at least four times each year. The Board's local offices, maintained on the premises of each Federal Reserve Bank, are primarily for the use of the Chairman and Federal Reserve Agent, whose position is statutory, in his capacity as official representative of the Board.

The work of the Board's organization, as thus constituted, is to be summarily described in what follows. The order of arrangement is determined largely by the convenience of describing first the more concrete activities. Another consideration has been that of grouping together in one place certain activities that have to do with individual banks and with particular situations, which consist chiefly of "case work," and grouping together in another place such other and different activities as promulgating rules and regulations and determining questions of general credit policy.

PARTICIPATION IN BANK OPERATIONS

The Board's organization, though not itself engaged in the banking business, does take some part in the bank operations which are going on continuously at all the Federal Reserve Banks, such as the provision of currency for circulation and the collection of checks. Specifically, if the whole field of Reserve Bank operations be considered, the participation of the Board's organization includes: (1) preparing the schedules for printing Federal Reserve notes at the Government's Bureau of Engraving and Printing in Washington, together with arranging for and supervising the distribution from Washington of Treasury currency (United States notes and silver certificates) to the twelve Reserve Banks and their branches and the distribution of Federal Reserve notes to the twelve Federal Reserve Agents—who keep on hand locally stocks of the necessary denominations of such notes and issue them locally, according to prescribed procedure, to the Federal Reserve Banks; (2) sharing, through the Federal Reserve Agents, with each of the twelve Federal Reserve Banks, custody of the collateral which the Reserve Banks are re-

quired by law to deposit with the Agents as a condition for the Banks' obtaining Federal Reserve notes; and (3) operating the Interdistrict Settlement Fund, the mechanism designed and used—by means of a telegraph system that connects the Board's offices with the Federal Reserve Banks and their twenty-four branches—for the purpose of facilitating transfers of funds from one Federal Reserve district to another and transfers of funds between the Reserve Banks and the Treasury. This work includes the making of the various debits and credits on the books of the Interdistrict Settlement Fund to effect daily settlement among the Federal Reserve Banks and the accounting relative to current settlements with the Treasury for redemption of notes or transfers of balances. Items going through the Fund commonly aggregate, for an average business day, more than 300 million dollars.

The three matters enumerated are the only ones that involve continuous day-to-day participation in banking transactions by any part of the Board's organization in the actual operations of the Federal Reserve Banks. The Board does, however, have certain contacts with other Reserve Bank operations in the exercise of its functions with respect to regulation, examination, etc., which are discussed elsewhere in this paper.

EXAMINATION OF BANKS

The work of the public authorities in the United States in supervising banks, of which an important but nevertheless limited part consists in the examination of banks from time to time, is at present divided among several different agencies. The examination of the twelve Federal Reserve Banks, however, together with their twenty-four branches and one agency, is exclusively in the hands of the Board's own organization. Under instructions of the Board, both general and specific, a field force of about twenty-five spends its entire time in the examination of the Reserve Banks.

The System's work in examining member banks covers only, for reasons explained in other papers in this volume, the State member banks of the System, which now number about 1,200. It is under the general supervision of the Board that this work is done by the Federal Reserve Banks—commonly in cooperation with the State au-

thorities. The Board's work includes: (1) the formulation and development, in collaboration with the examiners of the Reserve Banks, of principles relative to examination policies and procedures that will harmonize with the Board's general policies; (2) the study, either as part of the regular examination of the Reserve Banks or otherwise, of the personnel, procedures, and policies of their examination departments; and (3) the review of examination reports furnished to the Board by the Federal Reserve Banks and the follow-up, through the Reserve Banks, of any reports that indicate the need for corrective action.

The Board also has occasion, in a special connection to be explained presently, to review and follow up examination reports relating to individual member and nonmember banks that belong to "affiliate groups"—reports that are made by the examiners of the several Federal Reserve Banks, by the Comptroller of the Currency, by the Federal Deposit Insurance Corporation, or by State authorities.

OTHER WORK RELATING TO INDIVIDUAL INSTITUTIONS

Examination work represents an important part, but only a part, of the work done by the Board's organization with respect to particular institutions. A considerable amount of other work—called in a general way "supervisory"—involves consideration of the condition or other characteristics of individual banks or of the circumstances affecting particular situations. Part of this relates to Federal Reserve Banks, part to national or State member banks, part to nonmember banks, and part to bank holding companies or other "affiliates."

Federal Reserve Banks. At appropriate intervals, the Board has to appoint all three of the Class "C" directors for each of the twelve Reserve Banks, and certain directors of each of the twenty-four branches. For this purpose the Board must collect and organize a great deal of information concerning possible appointees. The Board has to classify the member banks in each district into the three groups—"large," "medium," and "small"—which elect directors of Reserve Banks. The Board designates the Chairman and Deputy Chairman of each Reserve Bank. It also passes upon the

appointment and the salary of the President and first Vice President of each Reserve Bank. The compensation of all directors, officers, and employees of the Reserve Banks is subject to approval of the Board. The Board has authority, which it exercises upon occasion, to readjust the boundaries of Federal Reserve districts, and to permit or require a Reserve Bank to establish or discontinue a branch office or agency. The Board exercises special supervision over all relationships and transactions entered into by any Federal Reserve Bank with any foreign bank or banker.

The Board obtains from each Reserve Bank, on forms prescribed by the Board, periodic reports with respect to the Bank's expenses. These reports show separately the expense for each of a number of designated functions and for each operating unit. The Board makes comparisons among the itemized expenses as between one Reserve Bank and another, from time to time conducts field surveys that bear on the subject, and where possible makes recommendations for effecting economies or increasing efficiency. The writing off of doubtful or worthless assets by the Reserve Banks is subject to the approval of the Board. The Board reviews the semiannual recommendations of the Reserve Banks for dividend declarations and their annual recommendations regarding charge-offs, the setting up of special depreciation allowances, reserves for estimated losses, etc. Certain daily reports are received from each Federal Reserve Bank that show separately every discount operation (including industrial advances and commitments) and every open-market operation.

Individual Member Banks. The work of the Board (other than that of examination) with respect to individual member banks relates in part to national banks but in the main to State member banks. The work with national banks arises largely from the fact that national banks must apply to the Board for permission to exercise trust powers or to establish foreign branches. In passing on these applications, the Board's organization must analyze and review, among other sources of information, examination reports made available for the purpose by the Comptroller of the Currency. As to State member banks, analysis of examination reports and other sources of information must be made in connection with (1) applications of State banks for membership in the Federal Reserve System,

which necessitate review of the financial condition of the bank and the character of its management; (2) consolidations and mergers involving State member banks; and (3) applications for the establishment of out-of-town branches by State member banks. State member banks submit to the Board three or four times a year reports of condition and twice a year reports of earnings and expenses, and from these reports general banking statistics are compiled.

Bank Holding Companies, etc. The work of the Board with respect to certain corporations that are "holding company affiliates" of one or more member banks also occasions study of individual banks. Such holding companies, notwithstanding their ownership of stock in a member bank, are not permitted by law to vote their holdings for any purpose without a permit from the Board. The consideration of applications for voting permits, especially when the number of banks in the "affiliate group" is very large, has often been a laborious matter. It involves in each instance analysis and review of one or more examination reports of every bank in the "affiliate group," regardless of whether or not the bank is a member of the Federal Reserve System.[2] This work serves a dual purpose: It keeps the Board informed regarding the condition, management, and operations of the holding companies and their affiliated institutions; and it affords a check on whether the affiliated organizations are complying with the statutory requirements and the agreements with and regulations of the Board.

Some work of similar nature is done with reference to (1) the establishment of foreign branches by national and State member banks, and (2) call reports of condition submitted by the five foreign banking corporations that come within the jurisdiction of the Board. These are one corporation operating under the so-called Edge Act and four corporations organized under State law and operating under agreements with the Board made in accordance with Section

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[2] The examination reports—except those covering State member banks, which regularly come to the Board from the Reserve Banks—are furnished to the Board for the purpose (1) by the applying corporation so far as one class of banks is concerned (State nonmember banks that do not belong to the Federal Deposit Insurance Corporation), (2) by the Comptroller of the Currency (as to national banks), and (3) by the Federal Deposit Insurance Corporation (as to insured nonmember State banks).

25 of the Federal Reserve Act. The Board examines the one foreign banking corporation that has been organized under Section 25(a) of the act.

Prior to 1935 the Board's organization had to do a large amount of work on applications from individuals for permission to serve as directors, officers, or employees of two or more banks. Beginning in 1916, the Clayton Antitrust Act prohibited such interlocking relationships in certain circumstances except by permission of the Board. The prohibition was at first of limited application, but in 1933 it was made applicable to all national banks and was also extended to apply not only to interlocking relationships with other banks but also with any corporation or partnership making loans on stock or bond collateral. In approving applications for permits, the Board had to make certain findings—at first, that the banks involved were not "in substantial competition," and after 1928 that the granting of the permit would not be "incompatible with the public interest." The investigation necessary for passing on a single application was often burdensome, and the number of applications was large. During the ten years ending with 1933, the average number of applications per year was about 340, but during 1934 there were nearly 2,300. The burden of individual applications was removed by the Banking Act of 1935, when Congress prohibited such interlocking relationships except in specified classes of cases and authorized the Board to make additional exceptions by regulations of general applicability.

ISSUANCE AND MAINTENANCE OF REGULATIONS

It has long been the practice of Congress, in connection with regulatory legislation that may itself specify certain requirements, to assign to an administrative agency, upon conditions and under general rules laid down by statute, the formulation of supplementary requirements. In accordance with this practice, the Board has been authorized, or in some instances both authorized and required, to adopt and promulgate rules and regulations relating to a variety of subjects. In consequence the preparation, issue, interpretation, and revision of regulations has always been an important and far-reaching part of the Board's work. The present section of this paper will indicate the variety and scope of the regulations that have been

issued by the Board, give some summary classifications, outline the steps that are commonly taken by the Board in the process of issuing or revising a regulation, and indicate the method by which a continuing watch is kept on the workings of each regulation.

The Board's power to issue rules and regulations rests in part upon a general provision of the Federal Reserve Act which directs the Board to "perform the duties, functions or services specified in this act and make all rules and regulations necessary to enable said Board effectively to perform the same." It rests also upon specific provisions of the Federal Reserve Act and other legislation—altogether some forty-seven different provisions of law. Pursuant to such statutory authority, and acting always with advice of counsel, the Board has issued twenty-one regulations that are now in effect. These are designated by successive letters of the alphabet from Regulation A (first issued in 1914) to Regulation U (first issued in 1936). They are enumerated by title in the appendix, with indication in each instance as to when the regulation was first issued and, in case it has been amended, when it was last amended.[8]

For the purpose of obtaining a general view, the Board's regulations may be summarily classified in various ways. One of these distinguishes six classes, relating respectively to—

(1) The Federal Reserve Banks (Regulations A, B, E, G, J, N, S);

(2) All member banks (Regulations C, D, I, L, O, Q, R), or some one class of member banks such as national (Regulation F) or State (Regulation H);

(3) All banks, both member and nonmember (Regulation U);

(4) Certain corporations designated as "holding company affiliates" (Regulation P);

(5) All members of any "national securities exchange" and all brokers or dealers who "transact a business in securities through the medium of any such member" (Regulation T); and

(6) Corporations desiring to establish banking offices abroad (Regulation K).

Another significant summary classification, excluding in this instance the seven regulations that govern the Federal Reserve Banks themselves, is based on subject matter:

(1) Reserve requirements (Regulation D);

(2) Maximum interest rates payable on time deposits (Regulation Q);

[8] See pp. 470-71.

(3) Margin requirements (Regulations T, U);
(4) Powers of member banks (Regulations C, F, O);
(5) Membership of State institutions in the System (Regulation H);
(6) Foreign banking business (Regulations K, M); and
(7) Interlocking directorates, affiliations, etc. (Regulations L, P, R).

The preparation of a regulation for issuance involves, as a general rule, detailed research and preparation by the Board and its staff, supplemented by criticisms and suggestions by the Reserve Banks and by the member banks or other persons to whom the regulation is to relate.

In the preparation of Regulation U, for example, which relates to loans by any member or nonmember bank for the purpose of purchasing or carrying listed stocks, the following stages were observed:

(1) The staff, by direction of the Board, did a considerable amount of preliminary work on the legal and other problems involved in Regulation U, based in part on the Board's experience with Regulation T (which governs loans by brokers), and during the course of this preliminary work informal discussions were held with members of the staffs of certain Federal Reserve Banks and with operating officers of member banks;

(2) A series of tentative drafts of the regulation were prepared and discussed until one was obtained that was considered good enough to submit to outsiders;

(3) This tentative draft was then sent to all of the Federal Reserve Banks, which were requested both to forward their own comments and criticisms and to submit copies of the draft, for comment and suggestion, to member and nonmember banks, representatives of securities exchanges, and other interested persons—and at the same time copies of the draft were forwarded by the Board to the Securities and Exchange Commission, the Federal Deposit Insurance Corporation, the Comptroller of the Currency, the Secretary of the Treasury, and the President of the American Bankers Association;

(4) Suggestions received from all of these sources, including special committees appointed by clearing-house associations in several different parts of the country and a special committee of the American Bankers Association, were assembled, analyzed, and digested;

(5) Members of the Board and members of the Board's staff met with the special committee of the A.B.A. to discuss the problems involved in the proposed regulation—and other discussions were held with individual bankers and groups of bankers with reference to particular problems, while close contact was maintained with the Securities and Exchange Commission and other interested governmental agencies;

(6) A revised draft was then prepared in the light of the various suggestions and discussions;

(7) Members of the committee of the American Bankers Association discussed this draft at a second meeting with members of the Board and the staff;

(8) The Board, after careful consideration of the revised draft and the comments which had been received, and after making certain modifications, adopted the regulation to become effective about thirty days after adoption.

The object of such elaborate procedure is not only to prevent the hasty promulgation of regulations but also to enable the Board to assure itself that its regulations, in addition to being effective, will be reasonable and workable from the point of view of the persons who are to be governed by them.

It does not often happen, nevertheless, that a regulation can remain in force indefinitely without amendment or revision. Changes become necessary or desirable from time to time for a variety of reasons—in order to incorporate the results of experience, to adjust the regulation to changed conditions, or to conform (as is frequently the case) to changes in the underlying statutes. The Board's organization must therefore keep a close watch on every regulation. It must weigh and consider queries, protests, and information obtained by visitation, correspondence, or interview. This work is supplemented by research carried forward by members of the Board or of the staff concerning matters over which they have special responsibility. When amendment or revision is undertaken, the procedure is roughly similar to that followed in issuing a regulation; as a rule, however, accumulated experience lessens the necessity for extensive consultation with outsiders.

DEVELOPING DATA FOR USE IN POLICY MAKING

Of all the responsibilities of the Board of Governors of the Federal Reserve System, the most important have to do with resolving questions of general credit policy, such as raising or lowering the discount rates of the Reserve Banks, increasing or decreasing the reserve requirements to which the member banks are subject, etc. All such questions arise out of, and their determination may affect the course of, developments in the general credit situation and the general business situation. These developments must consequently be continu-

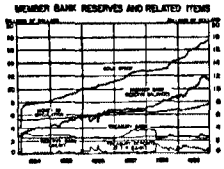
ously followed by the Board's organization for the purpose of laying a factual basis for policy making. Much of the work of the Board's organization is accordingly devoted to the assembling and organizing of economic data, to the tracing of their relations to policy making, and to the development of methods of presenting them in summary form, graphically or otherwise, to the Board and other policy making or advisory bodies of the System, to Congress, and to the public.

This part of the Board's work comprises, in the main, (1) the operation, development, and refinement of reporting services relative to the current course of Reserve Bank credit, member bank credit, money rates, and related factors, and the organization of data relative to capital issues, corporate profits, Treasury receipts and expenditures, gold movements, and foreign exchange rates; (2) the creation and maintenance, on a very extensive scale, of index numbers of production, employment, and the like; and (3) the persistent search, largely through cumulative consideration of recurring problems, for appropriate methods of analyzing the credit and business situation—methods that will be most illuminating to the Board in the light of the particular circumstances, frequently unprecedented in the history of central banking, in which the Federal Reserve System is called upon to take action in the field of general credit policy.

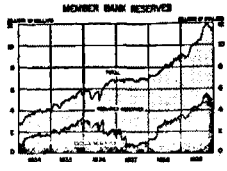
A concrete indication, in summary form, of some of the principal subject matters to which organized investigation is regularly addressed, as well as a fair illustration of certain of the methods of summarizing business data that are utilized, is afforded by the accompanying set of charts, which gives in miniature a reproduction of fifteen charts. These have been selected from a much larger number of the Board's standard charts that have been brought together, in slightly different form, in a chart book which is maintained for the use of Federal Reserve officials and has been made available in recent years to the general public. In the form of wall charts, the more important of them, together with many others on other subjects, have a permanent place on the walls of the rooms in which the Board holds its meetings or in other places in the Board's general offices.

STANDARD FEDERAL RESERVE CHARTS
15 Selected Charts

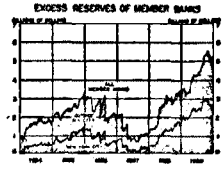
MEMBER BANK RESERVES AND RELATED ITEMS



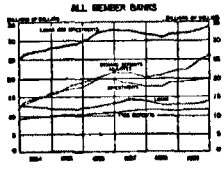
MEMBER BANK RESERVES



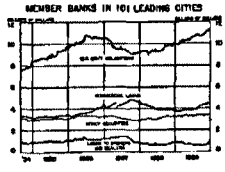
EXCESS RESERVES OF MEMBER BANKS



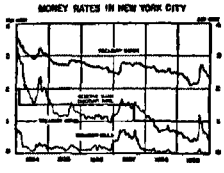
ALL MEMBER BANKS



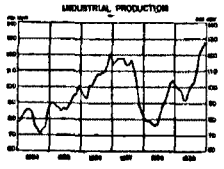
MEMBER BANKS IN 101 LEADING CITIES



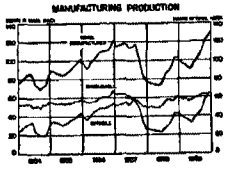
MONEY RATES IN NEW YORK CITY



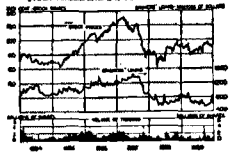
INDUSTRIAL PRODUCTION



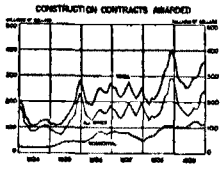
MANUFACTURING PRODUCTION



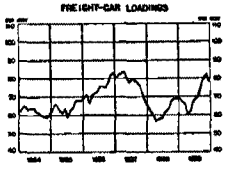
STOCK PRICES, BROKERS' LOANS, AND TRADING



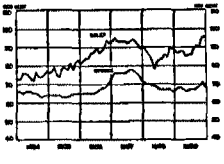
CONSTRUCTION CONTRACTS AWARDED



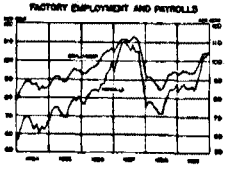
FREIGHT-CAR LOADINGS



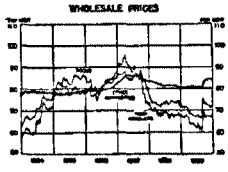
DEPARTMENT STORE SALES AND STOCKS



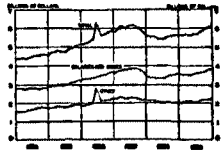
FACTORY EMPLOYMENT AND PAYROLLS



WHOLESALE PRICES



NATIONAL INCOME PAYMENTS



The work that underlies the Board's regular reporting service, in addition to the compilation from day to day or month to month of the necessary current statistics, may be illustrated by two historical examples, each of which relates to series of figures that appear on one of the miniature charts shown on the preceding page. The chart entitled "Member Bank Reserves and Related Items," which shows at a glance how an increase or decrease in these reserves during any given period is to be accounted for, has now been available in substantially its present form for about thirteen years, but it took a considerable amount of work during several of the preceding years to bring the matter to that stage. It was necessary to develop the analysis on which the chart is based, to study out suitable methods of deriving from the raw data the exact figures necessary to perfect the analysis, to arrange for the prompt and regular receipt of the current figures from the Treasury and the Reserve Banks, and to find suitable ways of bringing home the significance of the analysis to the public.[4] Underlying the chart entitled "Industrial Production," which shows—by months—the Board's general index of industrial production, is research work that goes back as far as 1920. At that time the only available index of industrial production was on an annual basis, not of much value for policy making, and the development of monthly series was necessary, with suitable adjustment for seasonal variations. Since the index was first published in 1922, several thoroughgoing revisions have become necessary because of changes in industry or other pertinent developments, and all of these revisions have been described in detail in the *Federal Reserve Bulletin*.[5]

The two instances cited will serve to illustrate the fact that in order to have the information needed for policy formulation the Board finds it continually necessary (1) to develop statistics suited to its special purposes, (2) to keep these statistics in technically sound and significant condition by appropriate adjustment for changes in the national economy and for improvements in available scientific methods, and (3) to analyze the meaning and significance

[4] Important stages in this prolonged development are listed in the appendix, pp. 472–73.

[5] These revisions are summarized in the appendix, pp. 474–76.

of the statistics, both for the short term and for the long term, from the standpoint of Federal Reserve policies and related economic developments.

It should be added that a substantial part of the work of the Board in research includes a continuing study of international financial conditions, including gold movements to this country and the reasons underlying them, the condition of foreign central banks, etc. Designed chiefly to keep the Board informed on these matters because of their bearing on policy questions, this work also relates to the Board's responsibility under recent legislation (Banking Act of 1933) to exercise special supervision over the relations of the Reserve Banks with foreign banks and bankers. Many of the more significant statistics are published currently in the *Federal Reserve Bulletin.*

RESOLVING QUESTIONS OF GENERAL CREDIT POLICY

Resolving questions of general credit policy, although it has called into being the facilities just described and constitutes the Board's most important function, is not an activity that can be well described in terms of the amount of work involved. The questions themselves are discussed at length elsewhere.[6] It should be noted, however, that since these questions arise out of developments in the general credit and business situation, the Board must keep itself continually informed of these developments and ready at all times to consider whether the situation calls for any action in the field of credit policy. Experience has shown that in this field the proper timing of action is of the utmost importance. Whether the situation calls for any action by the System, or is likely to call for any in the near future, must consequently be before the Board all the time, even though long intervals may take place between one policy action and the next or even between one specific proposal for action and the next.

In these circumstances the consideration and discussion that precede the making of such a proposal merge into the consideration and discussion that follow a proposal and precede Board action. The information or advice that may, in that connection, be sought from the staff (or from representatives of the Reserve Banks or other persons) is usually analogous to that which has been forth-

[6] Especially in the last two papers in this volume.

coming all along. In the end, any decision arrived at has ordinarily involved group consideration and discussion that have absorbed a great deal of time and effort over an extended period.

MAINTAINING LIAISON WITH RELATED AGENCIES

No small part of the time of members of the Board and its staff is regularly given over to conferences with representatives of related agencies and to maintaining the liaison that is essential to effective cooperation. There is preparation for and attendance at meetings of the Federal Open Market Committee and of its executive committee, to which reference has already been made, and attendance at conferences held from time to time by members of the Committee with representatives of the Treasury, in connection with Treasury financing and other matters. The Board meets at intervals with the Conference of Chairmen of the Federal Reserve Banks and the Conference of Presidents of the Reserve Banks, and quarterly with the Federal Advisory Council. The Chairman of the Board, other members of the Board, and members of the staff are called upon from time to time to testify before committees of Congress in connection with pending legislation. The Chairman or Vice Chairman, other members of the Board, and members of the staff are frequently in consultation with various Government departments, sometimes in connection with the work of some temporary interdepartmental committee. Members of the Board, as well as members of the staff, have frequent occasion to confer or consult with members of Congress desiring information on the general credit situation, questions of banking, amendments of Federal statutes, new legislation, and other matters concerning which the Board has responsibilities.

Members of the Board and its staff also confer and consult, more or less frequently, with the Comptroller's Office and the Office of the Federal Deposit Insurance Corporation, with representatives of banking associations and less formal groups, and with individual bankers and other persons. Members of the staff also participate informally in periodic conferences on the business outlook held by the Department of Agriculture, and from time to time consult specialists in that department on agricultural conditions. There are also continuing relations with the Department of Commerce (particularly the Bureau of Foreign and Domestic Commerce and the

Bureau of the Census), the Department of Labor (particularly the Bureau of Labor Statistics), and other agencies of the Government concerned with economic matters. There are frequent or occasional conferences with representatives of the Department of State, the Office of the Attorney General, the Reconstruction Finance Corporation, or the Securities and Exchange Commission.

All these relations, as well as others which could be mentioned, are in addition to the regular and continuous cooperation of the Board's organization with the twelve Federal Reserve Banks—which itself involves, among other things, System conferences from time to time between specialists from the Board and from all the Reserve Banks, such as operating officers, lawyers, bank examiners, auditors, statisticians, and the like.

EDUCATIONAL AND MISCELLANEOUS ACTIVITIES

Much of the work done by the Board for the purpose of informing and educating itself, in line of duty, is extended in one way or another in the direction of informing and educating the public—through personal discussion with visitors by members of the Board or its staff, extensive educational correspondence, and publication in the *Federal Reserve Bulletin* of the results of special studies, both economic and legal. One of the most important media used by the Board is the leading article, called "Review of the Month," which appears in every issue of the *Federal Reserve Bulletin*. This article is frequently devoted to analysis of the current credit situation, of legislation recently enacted, or other current developments. In addition, the Board has recently brought out for use by the general public a booklet, "*The Federal Reserve System—Its Purposes and Functions.*" There are also many periodic releases to the press—usually weekly or monthly—giving current statistics relative to Reserve Bank credit, member bank credit, or business conditions in the United States. All of this material, together with much more, is published currently in the *Federal Reserve Bulletin*. A partial list of the Board's publications is given at the end of this book.

The determination of legal questions relating to the activities of the Board is a fundamental and pervasive part of the Board's work. Few matters come before the Board that do not involve interpretation of the laws which set forth the Board's statutory

responsibilities, define its powers, or regulate some phase of the banking business. Such interpretation often involves the preparation of legal opinions by the Office of General Counsel of the Board's staff. When bills for amending the banking laws are pending in Congress, the appropriate committees of the Senate and House of Representatives frequently request the Board to present pertinent comments or suggestions.

Some miscellaneous matters which are included in the work of the Board, but which have not been covered elsewhere in this paper, are as follows: Supervision of the statistical work of the Federal Reserve Banks and of the monthly reviews of business conditions published by the Reserve Banks; compilation of statistics for particular purposes, such as disclosing, at a time when a proposed change in member bank reserve requirements is under consideration, how every member bank would be affected by the change; maintenance of a current card record for every member and nonmember bank and branch in the United States, showing the present status of the bank and any changes that have resulted from mergers, etc., over a period of years; preparation of comprehensive records including the preparation for publication, as required by statute, of a special record (with reasons) of actions taken on policy questions by the Board and the Federal Open Market Committee.

DIVERSITY OF THE BOARD'S WORK

As indicated by the foregoing analysis, the work carried on by the Board is of many kinds, which differ very widely from one another both in purpose and in technique. They range between such extremes as determining whether to raise or lower the reserve requirements applicable to all the member banks and deciding (on the basis of detailed information on the particular case) whether to grant the application of a State member bank in a given State to establish an out-of-town branch in a specified town or city. Such great diversity gives rise to difficult problems of organization and management. In attacking these problems the Board draws extensively, within the limitations set by law or dictated by sound principle, upon the assistance of the Board's permanent staff, the Chairmen and Federal Reserve Agents, and the several Federal Reserve Banks.

SYSTEM ORGANIZATION: DETERMINATION OF CREDIT POLICY

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Coordination of Policy Instruments	382
Role of the Federal Reserve Bank of New York	384
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Carl E. Parry
Chief
Division of Security Loans

SYSTEM ORGANIZATION: DETERMINATION OF CREDIT POLICY

From the policy making point of view, the principal statutory bodies composing the Federal Reserve System, which are sometimes referred to collectively as the Federal Reserve authorities, are the Board of Governors, the Federal Open Market Committee, and the several Federal Reserve Banks. A related advisory body is the Federal Advisory Council.

The Board, consisting of seven members, is appointed by the President and confirmed by the Senate. The Federal Open Market Committee, consisting of twelve members, comprises the seven members of the Board of Governors and five representatives of the Federal Reserve Banks who are elected by the directorates of these Banks. The principal authorities of the several Federal Reserve Banks are their officers, especially their presidents, and their directorates which choose these officers. The responsibility for the principal policy decisions of the System is shared, in ways to be described later in detail, between the Board, the Federal Open Market Committee, and the directorates of the several Federal Reserve Banks.

INSTRUMENTS OF FEDERAL RESERVE CREDIT POLICY

The System's principal instruments of credit policy, enumerated in the order in which they were first actually used, include (1) discount rates, (2) open-market operations, (3) maximum interest rates on time and savings deposits, (4) margin requirements, and (5) reserve requirements. They are called instruments of credit policy because they can be used to influence the general credit situation, which means to influence, directly or indirectly, the supply of bank credit, the cost of bank credit, or the demand for bank credit. The ones that work primarily on the supply of bank credit are reserve requirements and open-market operations, both of which may be used to influence the reserve position of the member

banks, upon which the lending power of the member banks depends. Control of discount rates and control of interest rates on time deposits work primarily on the cost of credit, the first by affecting the rates at which member banks may borrow at their Reserve Banks and the second more indirectly by affecting the alternative rate of return that depositors can get on their money if, instead of investing it, they allow it to remain on deposit in banks. The only instrument that works directly on the demand for bank credit is the control of margin requirements on security loans, which may be used to cut down in greater or less degree the borrowing power of persons borrowing on securities for the purpose of purchasing or carrying securities.

All of these instruments of credit policy have been employed by the Federal Reserve authorities at one time or another and almost all of them have been used not in one direction only but in both directions.

DISCOUNT RATES. Discount rates are the rates at which the Reserve Banks make loans to their member banks. First used as an instrument of credit policy at least as long ago as 1919, they have varied between 7 per cent at several of the Federal Reserve Banks in 1920 or 1921 and one per cent at the Federal Reserve Bank of New York since the autumn of 1937 and at some of the other Reserve Banks since the autumn of 1939.

OPEN-MARKET OPERATIONS. An open-market operation has been technically defined as consisting in the purchase or sale in the general or open market by a Reserve Bank of such classes of investments as a Reserve Bank is authorized by law to buy or sell. Open-market operations include the purchasing and selling of United States Government securities by the Reserve Banks and the consequent placing of funds in the market and withdrawal of funds from the market. Though engaged in as early as 1914, open-market operations were first used as an instrument of credit policy in 1923, and since the middle of that year the System's portfolio of United States Government securities has been as low as 90 million dollars (autumn of 1923) and as high as 2.9 billions (autumn of 1939).

MAXIMUM INTEREST RATES ON TIME AND SAVINGS DEPOSITS. These maximum rates became subject to the control of the Board in 1933, were fixed at the level of 3 per cent in the autumn of 1933, and were reduced to 2.5 per cent early in 1935 (with further reductions on January 1, 1936, for certain classes of time deposits payable in less than six months).

MARGIN REQUIREMENTS. Margin requirements became subject to the control of the Board in 1934. They were fixed in October 1934 on a sliding scale that varied for different securities from 25 to 45 (later 55) per cent but since the

spring of 1936 they have been expressed in terms of a single flat percentage which has been adjusted by action of the Board between levels as high as 55 per cent (from the spring of 1936 to the autumn of 1937) and as low as 40 per cent (since the autumn of 1937). The definition of margin requirements may be indicated by an illustration: When a broker or a bank makes a loan to a customer on the basis of a 40 per cent margin requirement, against securities having a current market value of $100 and for the purpose of purchasing those securities, the customer borrows $60 against those securities and provides the other $40 of the purchase money in some other way.

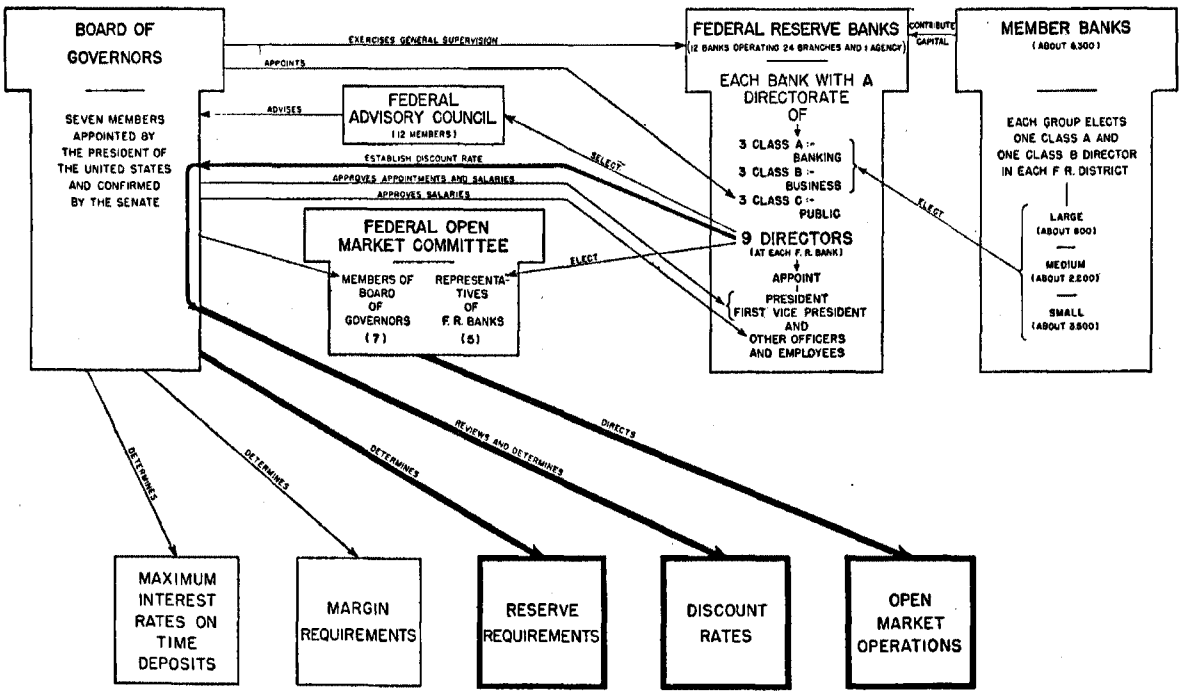
RESERVE REQUIREMENTS. Reserve requirements—which became subject to change "with the approval of the President" in 1933 and became subject to the full control of the Board (within statutory limits) in 1935—were raised in 1936 and again in the spring of 1937 and then lowered in the spring of 1938 to the present level of 5 per cent on time deposits and, for the several classes of banks, 12, 17½, and 22½ per cent on net demand deposits.

DISTRIBUTION OF AUTHORITY OVER INSTRUMENTS OF CREDIT POLICY

The distribution of authority over matters of credit policy is illustrated by the chart on page 376. The figure at the extreme left represents the Board of Governors of the Federal Reserve System (consisting of seven members appointed by the President and confirmed by the Senate) and the one at the extreme right represents the member banks (about 6,400 altogether, located in the twelve Federal Reserve districts). Another figure represents the Federal Reserve Banks—twelve Banks operating twenty-four branches (and one agency)—each having its own directorate and its own officers. Between the Board on the one hand and the Federal Reserve Banks on the other is the Federal Open Market Committee, comprising the seven members of the Board and five representatives of the Reserve Banks.

With respect to the member banks, the chart brings out, in addition to the fact that the member banks contribute capital to the Reserve Banks, the fact that the member banks in each district—as divided into three size groups: large, medium size, and small—elect six of the directors of the Reserve Bank. Not more than three of these may be and actually are bankers and three must be businessmen. Besides these six directors elected by the member banks, each of the Reserve Banks has three "public"

Organization of Federal Reserve System with Reference to Instruments of Credit Policy



directors appointed by the Board—making nine directors in all. The Board designates one of the three directors appointed by it as Chairman and Federal Reserve Agent and appoints another as Deputy Chairman.

These nine directors, besides selecting for their Federal Reserve district a member of the Federal Advisory Council, appoint all the officers and employees of the Reserve Bank, among them the President and First Vice President of the Bank (who must be approved by the Board of Governors). In addition, the directorates of the twelve Reserve Banks, which collaborate for the purpose in prescribed regional groups, elect five members of the Federal Open Market Committee, who are as a matter of fact selected from among the Presidents of the Reserve Banks.

The several instruments of credit policy (of which the three in heavier outline are in most circumstances the more important) are represented at the bottom of the chart by five squares, and each of these is joined by a line with the agency or agencies that make the policy decisions with reference to that instrument. Over three of the instruments the power of decision resides exclusively in the Board of Governors—maximum interest rates on time deposits, margin requirements, and reserve requirements. Authority over one of the instruments, the discount rate, is shared between the directorates of the Reserve Banks by which the rate must be "established" and the Board of Governors by which it must be "reviewed and determined." Policies with respect to open-market operations are decided neither by the Board nor by the directorates of the Reserve Banks but by the Federal Open Market Committee.

The Federal Advisory Council is shown on the chart, but not among the agencies having authority over instruments of credit policy. The Council consists as a rule of one member banker from each Federal Reserve district, who is chosen annually by the directorate of the Reserve Bank. As provided by the Federal Reserve Act, the Council stands in an advisory relation to the Board, is authorized to confer directly with the Board, and must meet in Washington at least four times each year. This provides within the legal framework of the System a standing arrangement through which representatives from all sections of the country are enabled

to present their views directly to members of the Board and to carry back to their several communities information obtained directly from the Board concerning such matters as the purpose and method underlying official System policies and actions.

The chart shows in broad outline the statutory organization of the System as it is at the present time, incorporating the changes that have been made by Congress during the twenty-seven years of the System's life. The more important changes, all of which were made in 1933, 1934, or 1935, have affected both the Board of Governors and the Federal Reserve Banks.

So far as the *Board of Governors* is concerned, the principal changes have been (1) to remove from the Board its two ex-officio members, the Secretary of the Treasury and the Comptroller of the Currency, and thus to make all the members of the Board full-time members; (2) to give statutory status to the Federal Open Market Committee and give the seven members of the Board places on the Committee; (3) to give the Board authority to approve or disapprove for five-year terms the appointments of the Presidents and First Vice Presidents of the Federal Reserve Banks; and (4) to give to the Board exclusive authority over the new instruments of credit policy that were given to the System in 1933, 1934, and 1935—interest rates on time deposits, margin requirements, and reserve requirements.

So far as the *Federal Reserve Banks* are concerned, the principal changes have been (1) to provide that the appointments of the President and First Vice President be subject to the approval of the Board of Governors; (2) to provide that the President shall be the chief executive officer of the Bank; (3) to vest complete control over the open-market operations of the Reserve Banks in the Federal Open Market Committee; and (4) to provide that the Committee, which had previously consisted of one representative of each of the twelve Federal Reserve Banks, shall consist of the seven members of the Board and five representatives of the Reserve Banks, elected annually, and that in electing these five representatives the directorates of the twelve Reserve Banks shall go together in five designated groups—Boston and New York; Philadelphia and Cleveland; Chicago and St. Louis; Richmond, Atlanta, and Dallas; Minneapolis, Kansas City, and San Francisco.

HISTORY OF FEDERAL OPEN MARKET COMMITTEE

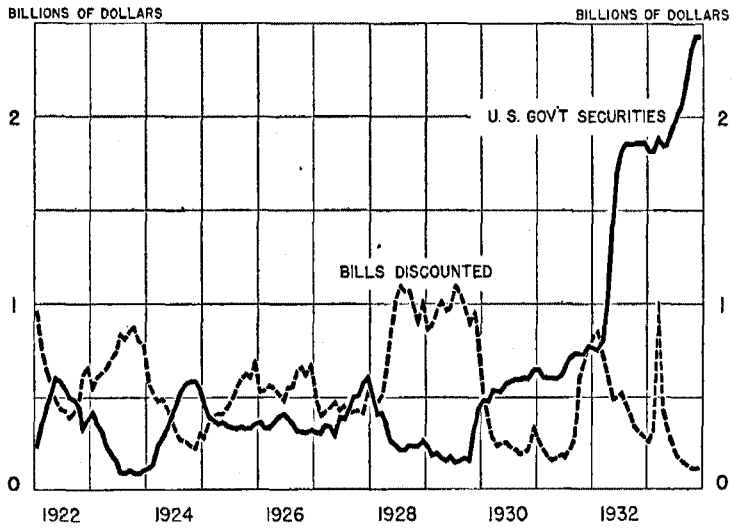
The Federal Open Market Committee, though not given statutory status until 1933 and not endowed with plenary powers until 1935, has a history that goes back to 1922. In 1921 and 1922, at a time when the earning assets of the Reserve Banks in the form of discounts for member banks were declining rapidly, the Federal Reserve Banks resorted to buying Government securities, each Reserve Bank on its own initiative and at times of its own choosing but virtually all in one place, New York City. This tended to disturb the central market for Government securities and was consequently of concern to the Treasury. It was also of concern to the Federal Reserve Bank of New York because the money put into the market by the out-of-town Reserve Banks was used by the member banks in New York City, directly or indirectly, to pay down their borrowings at the Federal Reserve Bank of New York. Finally, it was of concern to the Federal Reserve Board and all the other Federal Reserve Banks because to ease credit conditions in New York tended to ease them everywhere.

The actual relationship between discount policy and open-market policy, which first became evident about 1922 or 1923, was then called the "compensatory tendency." The "compensatory tendency" is illustrated by the chart on page 380. The chart shows for a period of years Federal Reserve Bank holdings of "Bills Discounted," which represent member bank borrowings at all Federal Reserve Banks combined, and Reserve Bank holdings of "United States Government Securities," which represent securities acquired through open-market operations. It will be noted from the chart that when the Reserve Banks *increased* their holdings of Government securities, their holdings of bills discounted usually went down, as happened conspicuously in 1922, 1924, 1929, and 1932–33, and when they *decreased* their holdings of Government securities, their holdings of bills discounted went up, as happened conspicuously in 1922–23, late 1924, and 1928. At times, as indicated on the chart, this inverse correlation did not hold, but these were times when other factors such as gold imports upset it, as will be explained in a subsequent paper. The point for present purposes is that as early as 1922 it had begun to be evident that the matter of open-market operations, instead of being a regional matter, is a national

or System matter, requiring for its proper handling close coordination among the several Federal Reserve Banks.

Recognition of this fact in 1921 and 1922 led the Federal Reserve Banks, acting through the "Governors' Conference" and under the leadership of the Federal Reserve Bank of New York, to set up early in 1922 a nonstatutory System committee to deal with open-market operations; and the committee system of dealing with this matter has had continuous existence ever since. The first Open

SYSTEM HOLDINGS OF DISCOUNTS AND UNITED STATES GOVERNMENT SECURITIES[a]



[a] For data, see Table 25, pp. 439–43.

Market Committee, as selected by the "Governors' Conference," consisted of the Governors of the Federal Reserve Banks of New York, Boston, Philadelphia, and Chicago. Its original purpose was to provide for the execution of orders from all the Federal Reserve Banks in a systematic manner, so as not to upset the market, but in October 1922 it entered the field of policy when it began, by agreement among the Governors of the Reserve Banks, to make recommendations from time to time to the several Reserve Banks. This first Committee, like all of its successors prior to 1935, had

advisory functions only; it had no power of decision in respect to any Federal Reserve Bank, as that power remained with the directorate of each Reserve Bank. The first Committee was succeeded in April 1923 by the second, called the "Open Market Investment Committee," which was, like the first, a nonstatutory advisory organization composed of the Governors of several Federal Reserve Banks (Boston, New York, Philadelphia, Cleveland, and Chicago). The Committee had a new status, however, in two important respects. By action of the Board supplemented by agreement between the Board and the several Reserve Banks, (1) the Federal Reserve Banks were not to engage in open-market operations on any material scale except with the approval of the Board, and (2) open-market policies were made subject to a certain governing principle, which was substantially the same as then applied under the law to the determination of discount rates: "That the time, manner, character, and volume of open-market investments purchased by Federal Reserve Banks be governed with primary regard to the accommodation of commerce and business and to the effect of such purchases and sales on the general credit situation."

The "Open Market Investment Committee" functioned for about seven years, throughout the period from 1923 to 1930, when it was succeeded by the "Open Market Policy Conference," of which the membership comprised, instead of the Governors of five of the Federal Reserve Banks, the Governors of all twelve of the Federal Reserve Banks. The Banking Act of 1933 gave the Conference legislative status under its present name of the Federal Open Market Committee, incorporated into law the rule of policy to which open-market operations had been subject informally since 1923, and provided that one member of the Committee should be elected by the directorate of each of the twelve Federal Reserve Banks. This act of 1933, although it forbade any Federal Reserve Bank to engage in any open-market operations except "in accordance with" regulations of the Board, did not give either the Board or the Committee authority to require any Reserve Bank to engage in such operations. The Banking Act of 1935, as already stated, gave this authority to the Committee and provided that the Committee should be constituted to include, as it does at

present, the seven members of the Board and five representatives of the Reserve Banks.

The chief landmarks in the history of the Federal Open Market Committee have been the arrangement made in 1923 by which open-market operations came to be officially recognized as an instrument of System credit policy and the legislation of 1935 by which the Committee was reconstituted and given mandatory powers.

COORDINATION OF POLICY INSTRUMENTS

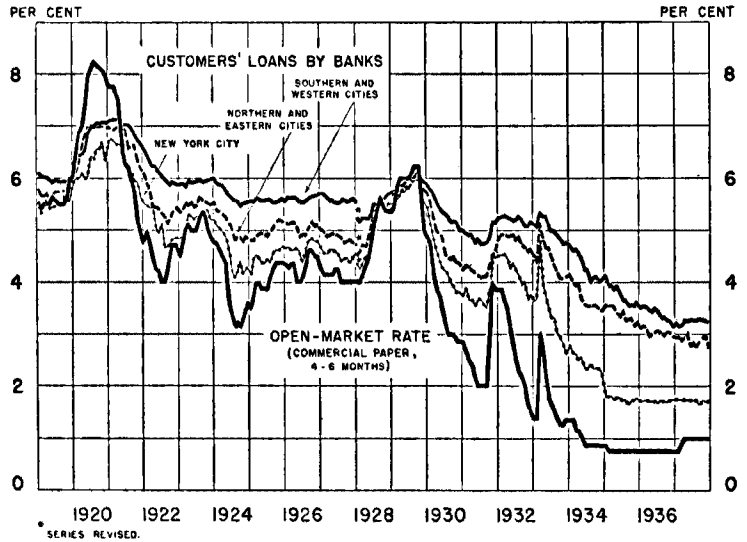
In addition to the problem of coordinating open-market operations as between the different Reserve Banks, there have been similar problems relating to (1) the coordination of changes in discount rates as between the different Reserve Banks and (2) the coordination of System action as between one instrument of credit policy and another.

Changes in the discount rates of the Federal Reserve Banks were in the early days conceived to be primarily a regional matter, but in due time experience showed that these changes, like open-market operations, are usually of national or System consequence. This is because the result of easing the discount rate at any Reserve Bank, if actually effective, is in course of time transmitted by competition among commercial banks to other districts, and any tightening at one Reserve Bank tends to cause borrowing to move away from that district to other districts. An even more constant and pervasive national influence, however, arises from the fact that member banks everywhere have long made it a practice to use the New York money market for adjusting their reserve positions, with the consequence that under normal conditions the discount rates of the Federal Reserve Banks can not be effective unless closely related to the prevailing open-market rates in New York City—which comprise the rates on call and time loans secured by stock-exchange collateral, the yields on bankers' acceptances and on Government securities, and the rate on commercial paper purchased in the open market.

The accompanying chart, entitled "Relations between Money Rates," illustrates this point. The chart shows the relations between

open-market rates and average rates charged by banks to their customers for the nineteen-year period 1919–1937. The course of open-market rates is represented on the chart by a curve for the open-market rate on commercial paper, which is the heaviest of the four curves, while average rates charged by member banks to their customers are represented by three curves, one for New York City, one for a group of Northern and Eastern cities, and one for a group of Southern and Western cities, the cities being Reserve Bank

RELATIONS BETWEEN MONEY RATES[a]



[a] For data, see Table 32, pp. 454-58.

and branch cities from which banks have reported their rates to the Board for many years. The chart indicates that these averages of rates charged customers, although they have differed considerably in level from one part of the country to another, have in all parts of the country moved up and down year after year in fairly close relation with the open-market rates at New York City. This is one of the fundamental facts of the rate structure of the United States. It is the general framework to which the discount rates of all the Federal Reserve Banks must be adjusted; the discount

rates in the different Federal Reserve districts, whether or not they are at the same level, can be in touch with the market only if they follow a single course. Thus the determination of discount rates, like the determination of open-market policies, has been found in practice to be primarily a national matter, notwithstanding the fact that these rates are not those of a single lending agency but those of twelve distinct institutions lending in as many different parts of the country.

A similar problem relates to the coordination of System action as between one instrument of credit policy and another. The nature of this problem can be illustrated by observing the interdependence of reserve requirements and open-market operations. It is obvious that the effect of an increase or decrease in reserve requirements on the volume of member bank reserves could be wholly or partly offset by open-market operations of the opposite tenor. The authority to change reserve requirements is vested in the Board of Governors and the authority over open-market operations is vested in the Federal Open Market Committee. Consequently, in order to be effective, any policy action which involves the use of either of these instruments must be based on agreement as to policy between the Board and the Committee.

System credit policies must be formulated on a national basis. This can be, and to a considerable extent is, achieved by informal contacts and cooperation among the different groups that constitute the Federal Reserve authorities. Members of the Board and officers of the regional Reserve Banks have long been in the habit of taking up questions of credit policy more or less informally as System questions to be discussed as such—by means of correspondence, conversations over the telephone and otherwise, and exchange of views at meetings of the Presidents' Conference and on other occasions. In this way, tentative decisions may be, and often have been, arrived at by common agreement—and then put into effect by the authority having power in the matter.

ROLE OF THE FEDERAL RESERVE BANK OF NEW YORK

In other leading countries of the world, as is well known, determination of national credit policy is the principal and characteristic

concern of a bank, called the "central bank" of the country. In the United States performance of this function has not been entrusted to a single bank, or even to a number of regional banks which perform the function by collaboration. It has been entrusted to an institution—the Federal Reserve System—which comprises (1) certain central organs (the Board of Governors and the Federal Open Market Committee) which are not banks but which have policy making powers, and (2) certain regional organs (the Federal Reserve Banks) of which none has authority to determine by itself a credit policy for its own region and each has authority to take part, but not without the central organs, in the determination of credit policy for the country as a whole.

In creating such a system, Congress did not disregard the experience of England and other countries having central banks. Congress decided against the creation of a central bank for the United States because of the belief that such an institution would not be suited to American conditions. In creating a Federal Reserve Bank for each region of the country, for example, instead of providing like certain European countries that there be one central bank with regional branches, Congress recognized the traditional desires of the several regions for a substantial measure of autonomy. Each Federal Reserve Bank, therefore, has the same statutory rights and powers, including the same statutory right to participate in making national credit policy, as every other Federal Reserve Bank.

In the practical operation of the System, however, the Federal Reserve Bank of New York, because of its location in the financial center of the country, has played a somewhat different role in the policy counsels of the System than any other Federal Reserve Bank. The Federal Reserve Bank of New York is larger than any of the others and has among its stockholding member banks the largest commercial banks in the United States with the most extensive correspondent relations. The importance of New York in Federal Reserve policy was increased by the development of open-market operations as an instrument of credit policy. These operations were of necessity conducted at the central market in New York and the local Federal Reserve Bank acted there both on its own account and as agent for all the other Reserve Banks and for

the Treasury. One effect of the establishment, first informally and later by Congress, of the Federal Open Market Committee, with the provision that no Federal Reserve Bank shall engage in open-market operations except in accordance with a policy adopted by this Committee, was to provide machinery for determining System policy with reference to the needs and points of view of all sections of the country rather than to the special needs and point of view of the central money market.

A further step in this direction was taken by the Banking Act of 1935. Until 1935, it lay with the directorate of every Federal Reserve Bank to decide whether that Reserve Bank would engage in any given instance in an open-market operation, but in that year the law was so changed as to transfer that power for all Federal Reserve Banks to the Federal Open Market Committee and give to members of the Board seven of the twelve places on the Committee.

The Federal Reserve Bank of New York has also occupied a central position within the System in the field of international financial relations. It is at New York that transactions in foreign exchange are centered, also most of the gold imports and exports of the country, and in New York that many foreign financial institutions have their American correspondents. With the consent of the Board and subject to regulations prescribed by it, all the Federal Reserve Banks have long had authority to establish and maintain correspondent relationships with foreign central banks, and it is through the Federal Reserve Bank of New York that such relationships have been established and maintained. In connection with such relationships, officers of the Federal Reserve Bank of New York have exchanged visits and conducted negotiations with the officers of foreign central banks. In 1927, an important conference on monetary policy was held in this country at which representatives of the Federal Reserve Bank of New York conferred with representatives of the Bank of England, the Bank of France, and the Reichsbank. In 1929, the Deputy Chairman and the Assistant Federal Reserve Agent of the Federal Reserve Bank of New York were among those who took an important part in Paris in formulating plans for the establishment in Switzerland of the Bank for International Settlements. In 1933 Congress authorized and required the Board of

Governors to exercise "special supervision" over all relationships and transactions entered into by "any Federal Reserve Bank" with any foreign bank or banker and provided, among other things of similar purport, that no representative of any Federal Reserve Bank should conduct negotiations of any kind with representatives of any foreign bank without first obtaining the permission of the Board.

In two important matters, therefore, open-market operations and relations with foreign banks, the general trend of legislation and of administrative development within the Federal Reserve System has been to diminish the influence of the Federal Reserve Bank of New York, as the representative of the central money market, and to increase the authority of the Board, as the representative of the country as a whole.

As to matters other than the formulation of national credit policy, however, Congress has shown no tendency to transfer powers from the Federal Reserve Banks to other parts of the System's organization. In particular, all the Federal Reserve Banks continue to have general control over all business relations between the Reserve Bank and the member banks under rules and regulations prescribed by the Board of Governors. It is always the Reserve Bank, for example, not the Board of Governors, that actually makes loans to the member banks, and in negotiating such loans passes judgment not only on the eligibility of their paper as a matter of law and regulation, but also on the acceptability of their paper as a matter of business risk. Numerous other matters of similar nature that have always been, and still remain, within the sphere of the several Federal Reserve Banks as marked out by Congress, are described in detail in the paper entitled "Operations of the Reserve Banks."

POSITION OF THE MEMBER BANKS

All the capital of the Federal Reserve Banks, as distinguished from their surplus, has always been furnished by the member banks, which have consequently always been the sole owners of the capital stock of the Reserve Banks. They have never had, however, all the legal rights that ordinarily belong to the stockholders of

a corporation. Acting as stockholders, the member banks elect six of the nine directors of each Reserve Bank, and these directors have substantial powers, but they do not have the power to manage the Reserve Banks, as private business is commonly managed, with a view to making profits for the stockholders. As a safeguard against this, the law provides that the directors may not pay to the stockholders (the member banks) dividends in excess of 6 per cent per annum and that all net earnings in excess of this amount shall be carried to surplus. This surplus, moreover, is not owned by the member banks, in any proper sense of the term, since (1) it may not be paid out to them except as it is drawn upon to meet dividend payments in years when net earnings are less than 6 per cent, and (2) all the surplus must, in the event that a Federal Reserve Bank should be liquidated, go to the Government of the United States. Other important limitations on the powers of the stockholders of the Reserve Banks have been made apparent in the discussion of the agencies that determine Federal Reserve policy. Under these limitations, the Federal Reserve Banks are obliged to operate as institutions impressed with a public trust and not as private institutions seeking profits.

NOTE IN CONCLUSION

It is not within the province of this statement to undertake a critique of the present organization of the Federal Reserve System, or to propose or advocate any changes in that organization. The whole discussion, however, has been based on the generally accepted view that of all the functions of the System the determination of credit policy is the one that puts the System to its severest tests. According to this view, an appropriate basis for suggestions for improving the organic structure of the System would be careful study of the merits and demerits of the credit policies pursued by the System during the course of its life, with particular reference to the relation of these merits and demerits to the structure of the System.

INSTRUMENTS OF FEDERAL RESERVE POLICY

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INSTRUMENTS OF FEDERAL RESERVE POLICY

This paper will outline the evolution of Federal Reserve instruments of credit policy from the organization of the System to the present time. In brief review it will be brought out that during the war period reliance was placed solely on the discount rate, and that beginning with 1922 and 1923 until 1929 discount policy was supplemented by open-market operations. In 1929 for a brief period these two instruments were supplemented further by so-called direct action. From 1930 to 1933 both the discount rate and open-market operations were again used to carry out a policy of monetary ease. After the autumn of 1933 these instruments were not usable, because the banks were out of debt and had a large volume of excess reserves. The banks were, therefore, largely independent of the Federal Reserve System and could not be influenced by the System's traditional methods of credit regulation. In an attempt once more to reestablish contact with the money market, the System, under authority acquired in 1933 and 1935, increased reserve requirements in 1936 and 1937. Continued inflow of gold, however, has increased excess reserves of member banks to a point where the Federal Reserve System, under existing authority, would be powerless to restrain through action on reserves an inflationary movement if one should develop.

CONDITIONS PRIOR TO FEDERAL RESERVE SYSTEM

For many years prior to the establishment of the Federal Reserve System it was apparent that some machinery for supplementing activities of individual banks was necessary to moderate violent fluctuations that occurred at irregular intervals in the country's currency and credit conditions. Sporadic and uncoordinated action to accomplish this purpose had, in fact, been taken by different institutions and agencies throughout the country's history. For example, as explained in the "Historical Introduction," the great metropolitan banks, with correspondents throughout the country,

performed some of the functions now performed by the Federal Reserve Banks. These banks held a considerable portion of the reserves of country correspondents. In and out of these banks flowed idle funds of country banks, as local demands for credit fell and rose, and it was to these banks that country correspondents turned for loans when their own supply of funds was insufficient.

To a considerable degree the city banks had developed a sense of responsibility for national credit conditions and, so far as their own resources permitted, acted as dispensers of supplementary credit in times of need to the banking system of the country. Clearing-house associations of banks in leading cities gave some of the elements of combined strength to the individual banks that constituted them. But these metropolitan banks were themselves operated as private business enterprises and their primary responsibility had perforce to be to their own depositors and stockholders. Consequently, when country banks were in the greatest need of assistance, the city banks, being under pressure themselves, were not always able to help them. At times disaster was averted only by the intercession of the Secretary of the Treasury, who would come to the rescue by making deposits of public funds or using other means to ease a critical situation; at other times banks issued emergency currency through the clearing house; and at times private banks, under forceful leadership, would obtain assistance from abroad.

The need for a more specialized institution, under Government regulation and partial control, with definite responsibility for general credit conditions, became increasingly apparent and a vigorous national movement for its establishment was organized. It was out of this need and this agitation that the Federal Reserve System finally emerged.

The System itself has undergone a decided evolution since its establishment over a quarter of a century ago. It was viewed originally in the main as a provider of elastic currency and a dispenser of emergency funds to meet seasonal and other temporary requirements of member banks. This concept was gradually enlarged. As the System has accumulated experience it has come to recognize that it has major responsibility to contribute to the formulation of national credit policies with a view to moderating booms and depressions.

The evolution of instruments of Federal Reserve policy, which is the subject of this paper, is parallel to and interrelated with this gradual clarification and enlargement of the conception of the System's function in our economy.

THE DISCOUNT RATE

In the conception of the framers of the Federal Reserve Act, based on past experience here and abroad, the principal instrument of credit control was the discount rate. It was assumed that, when member banks had made all the loans to customers that their funds permitted, and when additional customers with legitimate claims for accommodation presented themselves, the banks would go to the Federal Reserve Bank and rediscount some of their paper, thereby obtaining additional funds for lending to customers. When this occurred the Federal Reserve Bank could discourage or encourage additional lending by raising or lowering the discount rate.

In the early years of the Federal Reserve System circumstances were such that broadly speaking Federal Reserve policy found its principal and almost sole expression in changes of the discount rate. During the first two years of the System's existence, however, there was little demand for Federal Reserve Bank credit. Money conditions were extremely easy. Reserves had been released through the reduction in legal requirements in the Federal Reserve Act and in addition there was a large inflow of gold from abroad, reflecting purchases of American products by European belligerents in the World War.

With the entry of the United States into the war in April 1917 this situation changed sharply. Demand for a great many kinds of products rapidly increased. The Government floated Liberty bonds for the purpose of financing the war. In large part these bonds were purchased by the public through the use of bank credit and the banks in turn borrowed from the Federal Reserve Banks on the security of these bonds. The Federal Reserve Banks cooperated in every way with the Government to help finance the war and established rates of discount on paper secured by Government obligations that were somewhat lower than the coupon rates on the securities themselves. Consequently, member banks were able to let purchasers of Liberty and later Victory bonds acquire them

on a partial payment basis at a rate of interest corresponding to the coupon rate, so that it did not cost customers anything for the privilege of buying their bonds on time. Member banks, in turn, were able to obtain the funds at a slightly lower rate from the Reserve Banks, the margin being sufficient to pay for the member banks' expenses in handling the business. The result was a large increase in discounts at the Federal Reserve Banks, which went up rapidly and continuously from less than 100 million dollars early in 1917 to about 2.1 billions in the latter part of 1919, and 2.8 billions in 1920.

This large increase in the assets of the Reserve Banks was reflected on the liability side principally in a growth in Federal Reserve notes caused by an increase in business activity, in prices, and in the cost of living, which necessitated a large use of currency.

Discount rates during this period remained low in relation to the general level of money rates. Until the latter part of 1919, when war financing was completed, there was an expansion of bank credit supported by an expansion of Federal Reserve Bank credit incurred for the purpose of financing the war. Normal peace-time central banking policies were inapplicable and so were not taken into consideration. Beginning with the autumn of 1919, however, the Federal Reserve authorities began to consider the potentialities of the situation and to move toward arresting the unprecedented over-expansion of credit, which had been accompanied by a doubling of prices since pre-war days. In the early autumn months of 1919 the question of raising discount rates was considered by Federal Reserve authorities but action was delayed pending completion of war financing by the Treasury. Nevertheless, in November the discount rate at the New York Bank was advanced from 4 to $4\frac{3}{4}$ per cent. In January 1920 it was raised to 6 per cent and in May 1920 to 7 per cent. Rate advances were made at all the other banks as well. At that time the ratio of reserves to liabilities at the Federal Reserve Banks had fallen close to the minimum permitted by law, commodity speculation was widespread, with much bank credit extended on the basis of inflated prices. Action to tighten credit appeared to be unavoidable. In this instance, as in many others, the problem of correct timing was the central one in connection

with determination of credit policies at the time of their adoption as well as in discussions of past policy.

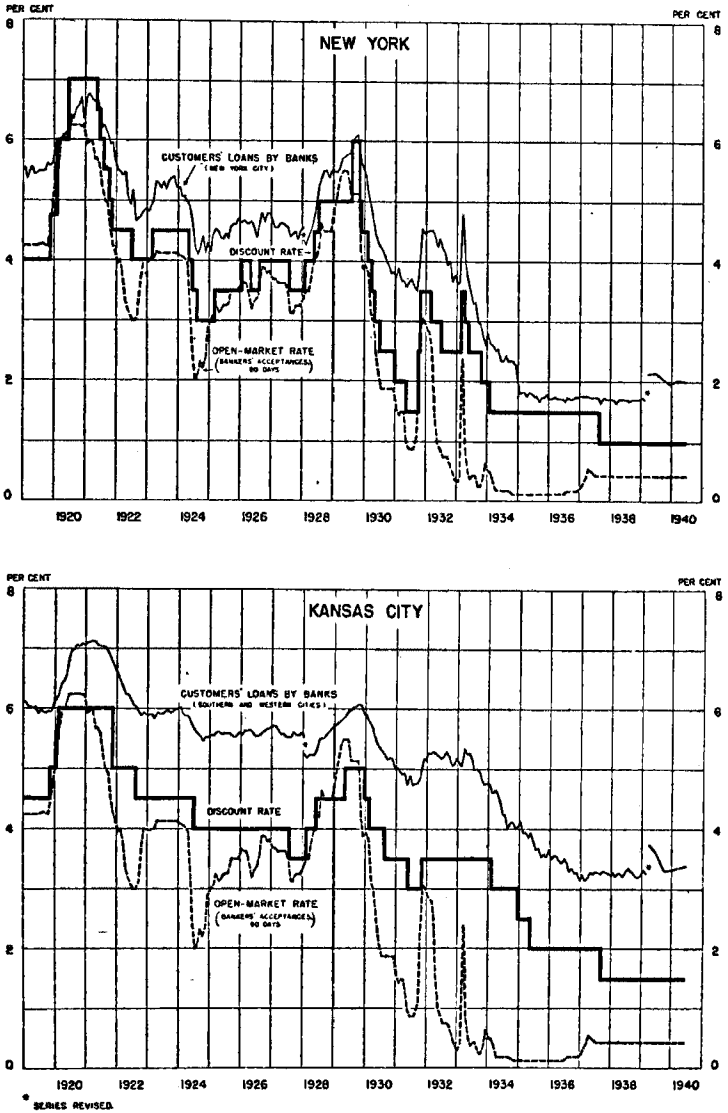
By the middle of 1922 discounts of the Federal Reserve Banks had declined to 400 million dollars. The great liquidation had been brought about in almost equal measure by an inflow of gold from abroad and by the decline of money in circulation which had accompanied the fall in domestic prices.

In connection with the discussion of discount-rate policy it should be pointed out that discount rates are generally related to rates on short-term money in the open market rather than to rates charged by banks to their customers. This is brought out by the chart on page 396, which shows the relationship of the three rates over a period of years at the Federal Reserve Bank of New York, as the principal money market, and at the Federal Reserve Bank of Kansas City, as representative of Reserve Banks in the interior. That discount rates are more closely related to open-market rates than to customers' rates reflects the fact that banks borrow from the Reserve Banks principally for the purpose of replenishing their reserves when they fall below the legal minimum and not for the purpose of relending at a higher rate. Habitual borrowing for the latter purpose would be contrary to banking tradition, to the spirit of the Federal Reserve Act, and to the policy of the Federal Reserve authorities.

When a bank finds itself short of reserves it has the choice of borrowing from the Federal Reserve Bank at the discount rate, or of liquidating some of its assets. The assets that it would be likely to liquidate, in the absence of other considerations, are those that bring the smallest return and are not connected with established customer relationships; that is, short-time open-market paper. For this reason, the discount rate is related primarily to the rate on this type of paper. Discount-rate policy with reference to prevailing open-market rates can in normal conditions exert a powerful influence on the expansion or contraction of bank credit.

This relationship between discount rates at the twelve Federal Reserve Banks and open-market rates, which are nation-wide in their influence, emphasizes the fact that discount-rate policy, in

PLACE OF DISCOUNT RATE IN THE RATE STRUCTURE[a]



[a] For data, see Table 32, pp. 454-58.

order to be effective, must not be determined solely with reference to regional considerations but must be national in scope.

OPEN-MARKET OPERATIONS

In 1922 with credit and economic conditions somewhat more normal, with discounts of the Reserve Banks at a relatively low level and their reserve ratio well above the required minimum, a new phase in credit policy began to develop. It was at this time that open-market operations as a supplement to discount rates became a recognized part of Federal Reserve System policy. Such operations by the Bank of England had been known in the London market for a long time and were sometimes referred to as the hidden hand which influenced conditions in the money market. They were used principally to make Bank rate, as the discount rate is called in England, effective.

In 1922 the individual Reserve Banks bought Government securities on their own initiative, without System consultation. Their purpose was to build up their earnings, which were declining with the liquidation of discounts. This action led to several difficulties. In the first place, the competition of the different Reserve Banks for Government securities was disorganizing the Government security market. Treasury officials indicated that they would be glad if the actions of the individual Reserve Banks could be coordinated.

In the second place, Government securities were bought for the most part in the New York market and created reserves there that were used to liquidate discounts at the New York Reserve Bank. It became apparent that purchases of Government securities by the Reserve Banks at a time when the volume of discounts was large did not increase total earning assets of the System, but merely substituted Government securities for discounts. Member banks that were in debt at the Reserve Banks and received reserve funds through purchases of Government securities by the Reserve Banks were likely to use these funds to repay their indebtedness. Consequently, when there was a substantial volume of member bank indebtedness, purchases of Government securities might increase

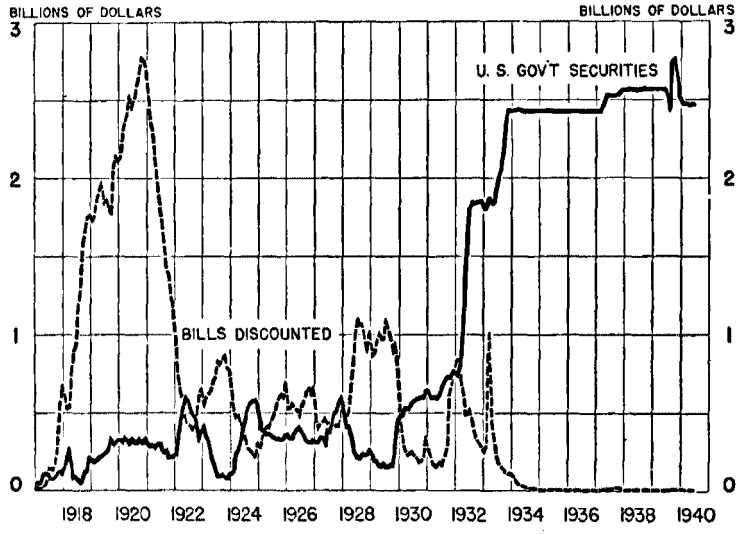
the earning assets of individual Reserve Banks without increasing the earning assets of the System as a whole.

Recognition of this fact led to the appointment of a System Open Market Committee, consisting of five Governors of the Reserve Banks, for the purpose of coordinating open-market purchases. In the spring of 1923 this Committee was reorganized and a broad principle for the conduct of open-market operations was adopted. Not only was disorganization of the Government security market to be avoided, but sales and purchases in the open market were to be guided by the same considerations as those stated in the law in connection with discount rates. Henceforth, open-market operations were to be conducted with regard to existing credit conditions and with a view to accommodating commerce and business. This marks an important step forward because it indicates a clearer recognition by the Federal Reserve System of the fact that the various instruments in its possession have a relationship to one another and must be employed on the basis of the same general guiding principles. Recognition of an Open Market Committee consisting of the twelve Governors of the Federal Reserve Banks was incorporated in the law by the Banking Act of 1933, together with the principles by which the Committee should be guided. By the Banking Act of 1935 the Committee was reconstituted to consist of the seven members of the Board of Governors and five representatives of the Federal Reserve Banks elected regionally. The Committee was given power to determine upon purchases and sales in the open market by the Federal Reserve Banks, which are required to participate in such operations. This enactment constitutes a complete recognition in law of the national significance of open-market operations and of the need of national control over them.

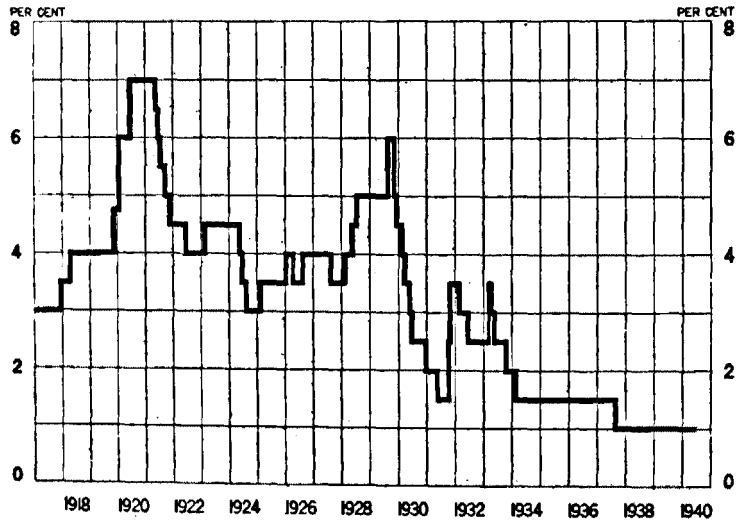
In the discussion of open-market operations no reference is made to purchases and sales of bankers' acceptances by the Federal Reserve Banks. Acceptances are similar to discounts in that they are acquired by the Reserve Banks at the initiative of member banks (or dealers) and not of the Reserve Banks themselves. On the other hand, they are similar to United States Government obligations in that their acquisition by the Reserve Banks tends to reduce the indebtedness of member banks. Broadly speaking,

Application of Federal Reserve Discount Policy[a]

1. System Holdings of Discounts and United States Government Securities



2. Discount Rate, Federal Reserve Bank of New York



[a] For data, see Table 25, pp. 439–44 and Table 32, pp. 454–58.

acceptance policy has seldom been a factor of first importance in the System's policy, and its omission from most of this discussion for the purpose of brevity and simplicity sacrifices nothing essential.

Throughout the 1920's the discount rate and open-market operations were used as twin instruments of credit regulation. In the early spring of 1923, and again in 1925 and 1928, when conditions indicated that the System should exercise a restraining influence, it sold Government securities in order to make it necessary for the banks to increase their borrowings at the Reserve Banks, and then increased the discount rate to make the borrowing more expensive. It thus attempted to make its policy more effective by coordinating the use of the two instruments of credit policy. This is shown in the chart on page 399, in which bills discounted and United States Government securities respectively represent member bank borrowings and System open-market operations. On the other hand, when the System wished to ease credit conditions, as in 1924 and in 1927, it purchased Government securities in the open market and simultaneously reduced the discount rate at the Reserve Banks. It thus provided member banks with reserve funds to reduce their indebtedness at the Reserve Banks and also made such indebtedness as remained less burdensome to the member banks. This policy was intended to put member banks in a position and a frame of mind to be more liberal in extending credit. A necessary condition for the effectiveness of such a policy is that the volume of excess reserves at the disposal of member banks be limited. When they have a large amount of reserves in excess of requirements this technique ceases to be applicable.

One important observation to be made about the entire period from 1922 to 1927 is that to an increasing extent credit policy was viewed as joint action of the twelve Federal Reserve Banks and the Board, and independent and separate action in the general credit field by individual Reserve Banks was increasingly subordinated to national credit policy.

DIRECT ACTION PRIOR TO 1929

The culmination of discount and open-market policy as the principal elements in Federal Reserve policy came in 1928 and 1929.

At that time there also emerged another instrument of credit policy; namely, direct action by the Reserve Banks in controlling credit extended by individual member banks. Direct action had been used in a limited way by the Federal Reserve Banks in their relationship with member banks for many years. A study made in 1926 showed that many of the Reserve Banks were in constant contact and correspondence with their members and when a bank was using Reserve Bank credit too freely or too continuously Reserve Bank officials would look into the situation and suggest that the bank handle the matter either by restricting its lines of credit or by acquiring additional capital. The Federal Reserve Act specifies that advances to individual member banks shall be made with reference to the rights of other member banks, and the Federal Reserve Banks have always interpreted this provision to mean that no individual bank should lean on a Federal Reserve Bank continuously when such action amounted to borrowing capital from the Federal Reserve Bank.

Some passages from the *Annual Report of the Federal Reserve Board* for 1926 may be quoted in this connection:

> . . . Though there are circumstances that may explain and justify continuous borrowing by a member bank over a considerable period of time, particularly if the need for the borrowing arises from general economic conditions in the borrowing bank's locality, the funds of the Federal Reserve Banks are primarily intended to be used in meeting the seasonal and temporary requirements of members, and continuous borrowing by a member bank as a general practice would not be consistent with the intent of the Federal Reserve Act. In most cases the member bank can make adjustments of different kinds in its own affairs, which will enable it to repay its borrowings at the Reserve Bank and at the same time to strengthen its own position. The bank may find it advisable, for example, to increase its own capital or to bring about a better adjustment of the volume and maturities of its investments to the credit requirements of its local customers.
>
> * * * * *
>
> . . . [By taking these factors into consideration] the Reserve Banks are not only discharging their responsibility to the member banks under the act, but are also exerting their influence toward sounder general banking conditions in the interests alike of the member banks, their depositors, and the public.

The matter was discussed again in the 1928 *Annual Report*, which pointed out the distinction between what was at that time called banking policy, dealing primarily with individual banks, and credit policy, which had to be impersonal and to apply to all banks alike. To quote from this report:

> Influence exerted by a Reserve Bank on the loan and investment policy of an individual member bank is ordinarily exercised only over banks that are borrowers from the Reserve Banks. It is in the nature of banking supervision, and is akin in many respects to the bank examination function of the Reserve System. This phase of Reserve Bank policy may be called banking policy, as distinguished from credit policy, which deals with more general developments of banking in relation to the credit needs of the country. Banking policy ordinarily has but limited effect on credit conditions as a whole, because no class of borrowers is confined for accommodation to any single bank or group of banks, and because of the general mobility of bank credit. When one member bank, for example, on its own initiative or at the instance of the Reserve Bank, repays indebtedness to the Reserve Bank by withdrawing funds lent on the stock exchange, the effect may be to cause the borrower to seek accommodation at another bank, member or nonmember, that is not indebted to the Reserve Bank. . . . The importance of banking policy lies in promoting the soundness of member banks, and cooperation of these banks with the Federal Reserve System in carrying out banking policy is essential to the maintenance of sound banking conditions. For influencing general credit conditions, however, the Federal Reserve System relies on credit policy rather than on banking policy.
>
> Credit policy is essentially impersonal and finds expression chiefly through the influence that the Federal Reserve System may exert on the volume and cost of bank credit through its policy of sales or purchases in the open market and through discount rates on member bank borrowings and buying rates on acceptances. In determining upon credit policy the Federal Reserve System is always under the necessity of balancing the advantages and disadvantages that are likely to follow a given course of action. Low money rates may have a favorable effect on domestic business, but at the same time may stimulate speculation in securities, commodities, or real estate. High money rates, on the other hand, may exert a moderating influence on speculation, but at the same time may result in a higher cost of credit to all lines of business, and thus be detrimental to commerce and industry; ultimately they may draw gold from abroad, which would tend to ease the domestic situation. It is impossible to foresee all the effects of a credit policy and difficult to appraise them even after they have developed. It is certain, however, that the Federal Reserve System must steer its course with reference to broader developments and longer time objectives than day-to-day or month-to-month changes in any particular line of credit.

DIRECT ACTION IN 1929

In 1929 the approach to direct action was somewhat different both because it was a part of credit or monetary policy rather than a procedure related entirely to the behavior of individual banks and because it was originated by the Federal Reserve Board rather than by the Federal Reserve Banks. In 1928 and early 1929 the Federal Reserve Banks sold all the Government securities held in the System account (although about 150 million dollars continued to be held by individual Reserve Banks outside of that account), and gradually advanced the discount rate from 3.5 to 5 per cent. This was done as a part of a policy of restraint in the face of a rapid expansion of member bank credit, particularly in brokers' loans, and a general speculative situation. In the first half of 1928 there had been an outflow of gold and this, together with the sales of Government securities by the Reserve Banks, had resulted in indebtedness of member banks in the aggregate exceeding a billion dollars.

The two traditional instruments of credit policy were in full operation. The Reserve Banks had sold United States securities in the open market for the purpose of putting the member banks in debt and had advanced the discount rate in order to increase the cost to member banks of acquiring additional funds. There was, however, no evidence of slackening in the expansion in speculative activity, which was being financed in considerable part by loans on securities by corporations other than banks. On the contrary, early in 1929 it was increasing at a feverish rate. In the circumstances the question was whether to raise discount rates still further or to pursue some other policy. In later years it has been the view of some students of the period that with business, and particularly construction activity, beginning to show signs of slowing down it might have been the best policy for the Federal Reserve System in 1929 to ease credit conditions and to let the stock market fall of its own weight while the System took action to support business activity. There are other students who believe that there was over-expansion in some lines of business and that credit restraint would have been a salutary corrective. At the time, in 1929, the overwhelming weight of opinion was that a policy of restraint was essential, and discussion

centered on the particular method of restraint that would be most effective and would best serve the public interest.

There was a difference of opinion between the Federal Reserve Banks and the Board as to whether an immediate and rapid increase in the discount rate would be the best policy, or whether it would be better to leave the discount rate unchanged and to attempt to control the speculative expansion by insisting that such member banks as were in debt to the Reserve Banks should either liquidate their indebtedness or reduce their street loans. The Board in advocating this direct action felt that an increase in discount rates was likely to penalize business throughout the country, which the Board was not willing to do for the sole purpose of controlling stock-market speculation. The Board believed that the speculative situation could be reached by more direct methods.

Pressure by the Federal Reserve Board and the Reserve Banks on member banks to liquidate their street loans or their indebtedness to the Reserve Banks accentuated the sharp rise in money-market rates which reflected the vigorous demand for speculative loans; high rates paid for money in the stock market in turn attracted funds from all over the country and resulted in a rise in interest rates charged to business. The Board's policy, which was continued through the spring, resulted in some liquidation of Federal Reserve credit and some decrease in brokers' loans but was accompanied by a very sharp rise in money rates. In the summer the policy of direct action was discontinued and shortly thereafter the discount rate at the New York Bank was raised to 6 per cent. At the same time, however, the Federal Reserve Banks reduced their buying rate on acceptances so that there was no substantial tightening in the credit situation.

Direct action as a part of monetary policy, therefore, had a short and somewhat inconclusive trial in 1929. Since that time it has become more definitely recognized in the law, which in 1933 prescribed that, in determining whether to grant or refuse advances to member banks, the Federal Reserve Bank shall take into consideration "whether undue use is being made of bank credit for the speculative carrying of or trading in securities, real estate, or commodities, or for any other purpose inconsistent with the

maintenance of sound credit conditions." The Banking Act of 1933 also prohibited banks from placing loans on account of nonbanking lenders, a practice which had contributed to the difficulties of control in 1929.

MARGIN REQUIREMENTS

A further provision for regulating a particular class of loans without directly affecting the general volume or cost of money was incorporated in the Securities Exchange Act of 1934. This law, which grew largely out of the experience of 1924–1929, directs the Board of Governors to determine the amount of collateral that shall be required on loans made by brokers and dealers for the purpose of purchasing or carrying registered securities, and authorizes the Board to make similar determination with respect to loans made by banks and other lenders and in addition to prescribe margin requirements for short sales. This provision of the law enables the Board to influence the effective demand for a certain type of loan directly through determining the loan value of securities, without limiting the supply of lendable funds.

The machinery for applying this device to brokers and dealers was set up by the Board in the autumn of 1934, as required by the Securities Exchange Act. The margin requirements prescribed by the Board were those formulated in the act. They were on a sliding scale, differing for different securities between 25 per cent and 45 per cent of the current market price of the security, according to the amount by which the current market price had advanced from its lowest price for the three preceding years. Under this formula, the margin requirement for purchasing or carrying a given stock would automatically increase with the advance in its price, but not to a level above 45 per cent. The advance in the market that began in the spring of 1935 had by the end of the year brought the requirement for many stocks to this maximum. Early in 1936, at a time when the market was advancing further and with increased rapidity, the Board increased the maximum to 55 per cent, as a precautionary measure. This action had the effect of increasing the requirement on the stocks which had been advancing most rapidly. Shortly thereafter, when the market was still advancing, this figure

was made uniformly applicable to all registered securities. At the same time, margin requirements were extended to cover banks as well as brokers and dealers. The 55 per cent level was retained until the autumn of 1937, when a reaction in the market and a sharp recession in general business showed that there was no longer any current need to restrain speculation in securities for the rise. Margin requirements were then reduced to the 40 per cent level. At the same time a requirement of 50 per cent was prescribed for short sales.

Margin requirements have served a useful public purpose, and some light has been thrown upon both their possibilities and their limitations as an instrument of policy. Experience has not been sufficient, however, to test their effectiveness thoroughly.

POLICY DURING DEPRESSION

In the autumn of 1929 the stock market collapsed and the whole economic picture changed rapidly from one of upswing to one of decline. The New York banks were subjected to enormous pressure as nonbanking corporations and other private lenders to brokers withdrew their funds, and the banks took over the loans in order to prevent wholesale bankruptcy by the brokers. The Federal Reserve System promptly began to buy Government securities to ease the situation and also reduced discount rates. After 1929 the System's policy was one, first, of easing credit conditions, and later, of permitting the inflow of gold to exert its full easing influence. This policy was pursued in order to counteract the deflationary process that was under way and of encouraging credit expansion with a view to promoting business recovery. Discount rates were gradually reduced from 6 per cent in 1929 to between one and one and a half per cent in 1937 and the Federal Reserve Banks' holdings of United States Government securities were increased from 150 million dollars in the autumn of 1929 to 2.5 billions in the autumn of 1933.

During the period of deflation security purchases by the Federal Reserve Banks resulted chiefly in helping member banks to get out of debt and to meet the constantly growing demand for currency for hoarding and for gold for export. While the System's general

credit policy was one of promoting monetary ease, money remained tight and many prospective borrowers found it difficult to obtain credit. This condition was aggravated by a general collapse in values, which made it necessary for banks to call many loans, and reduced the number of people whose credit standing was such as to enable them to borrow from the banks. In fact, credit liquidation on a gigantic scale was in progress. It was not until after the middle of 1932 that member banks began to accumulate a substantial volume of excess reserves.

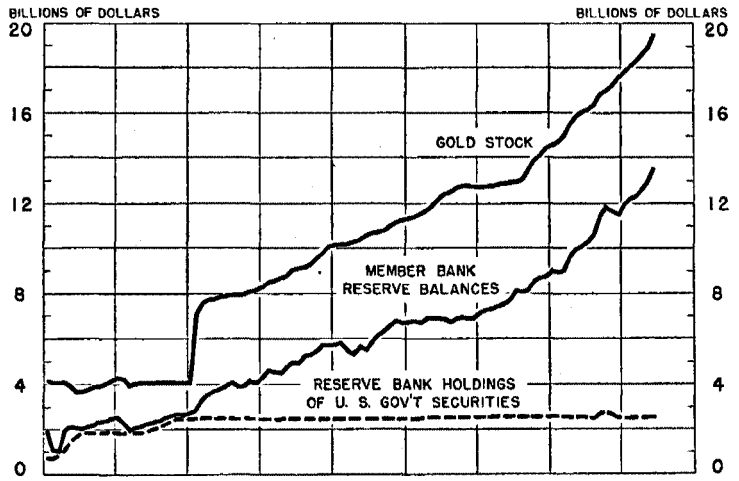
The policy of monetary ease was temporarily interrupted in September 1931 when England went off the gold standard and a rapid outflow of gold from this country occurred. For a time discount rates were raised and acceptance rates were also advanced with the consequence that acceptance holdings of the Federal Reserve Banks decreased sharply and member bank discounts temporarily increased.

During the period of credit liquidation and general deflation in 1930, 1931, and 1932, the Federal Reserve Banks had been handicapped in their ability to assist the member banks and to arrest the deflation both by the rigid eligibility requirements for rediscounting laid down in the Federal Reserve Act and by the requirement that collateral against Federal Reserve notes must consist of gold and eligible paper. In order to enable the Reserve Banks better to function in the emergency, the Glass-Steagall Act passed in February 1932 permitted the Reserve Banks under certain restrictions to make advances to member banks on any sound collateral and temporarily permitted the use of United States Government obligations as collateral for Federal Reserve notes. These provisions gave the Federal Reserve Banks greater flexibility in using their resources to serve the public interest. The power to make advances to member banks on any sound assets was incorporated into permanent law by the Banking Act of 1935, but the power to pledge United States Government obligations against Federal Reserve notes, after several extensions, expires under present law on June 30, 1943. Collateral requirements had done fully as much as eligibility rules in preventing the Federal Reserve System in the years 1930 to 1932 from effectively combating a disastrous deflation.

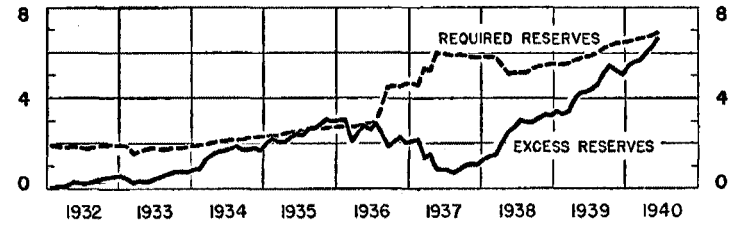
By the autumn of 1933 member bank indebtedness had diminished to a small amount, discount rates were low, and the member banks had about 800 million dollars of excess reserves. By 1935 discounts had disappeared almost altogether and excess reserves had

MEMBER BANK RESERVE SITUATION[a]

1. Total Reserves and Their Principal Sources



2. Excess and Required Reserves



[a] For data, see Table 25, pp. 439–44 and Table 30, pp. 448–52.

increased to 2.8 billion dollars as the result almost entirely of an inflow of gold from abroad following revaluation of the dollar at the end of January 1934.

Excess reserves and the principal sources of member bank reserves over the period 1932–1939 are shown in the accompanying chart.

This chart indicates clearly that member bank reserve balances were increased up to the end of 1933 principally by purchases of United States Government securities by the Reserve Banks and after that chiefly by the inflow of gold from abroad.

CHANGES IN RESERVE REQUIREMENTS

In view of the large increase of excess reserves the question arose as early as 1935 whether it would not be wiser for the Federal Reserve System to absorb some of these excess reserves while they were unused and widely distributed, rather than allow them to become the basis of an excessive credit expansion. The so-called Thomas Amendment adopted in May 1933 introduced an additional instrument of credit control by authorizing the Board to raise or lower member bank reserve requirements in order to prevent an injurious expansion of credit. This provision, however, made the authority to change requirements dependent on the President's declaring the existence of an emergency and also upon the approval of the Secretary of the Treasury. The Banking Act of 1935 clarified this matter, removed the emergency provision, and placed authority entirely in the hands of the Board of Governors. On the other hand it limited the power to raise reserve requirements by prescribing that they could not be made more than double the ratios stated in the law.

In the summer of 1936 the Board of Governors of the Federal Reserve System decided that it would be in accordance with the spirit of the law to raise reserve requirements at that time, since this action would reduce the volume of excess reserves without putting banks in debt, and would thus prevent the large volume of excess reserves from becoming the basis of a possible injurious credit expansion. Consequently, reserve requirements were raised by 50 per cent for all classes of member banks and all classes of deposits. The increase made no noticeable difference in the credit situation, as money rates remained low and banks continued to have ample funds at their disposal. Gold continued to come in and by the end of 1936 the volume of excess reserves again exceeded 2 billion dollars.

At the end of 1936 economic activity was increasing rapidly. Inventories were accumulating, a wave of buying was in progress,

and the prices of certain industrial raw materials were going up rapidly. Capital expenditures of manufacturing industries were growing apace and prices of securities were at the highest level since the early part of the depression, notwithstanding an increase in margin requirements for security loans imposed early in 1936. In the light of these conditions the Board decided in January 1937 once more to raise reserve requirements and this time to the limit permitted by law; namely, to increase them by one-third for all classes of banks and deposits, which in the aggregate would bring the required reserves to double the basic amount stated in the law.

In the meantime the Treasury toward the end of 1936 adopted a policy of accumulating gold received from abroad in a so-called inactive account, against which no gold certificates were issued. As a consequence, current gold imports were not reflected in additions to member bank reserves but only in the amount of gold in the inactive account.

In raising reserve requirements for the second time the Board made it clear that this was not a reversal of the policy of monetary ease pursued since the beginning of the depression. After meeting the increased requirements member banks in the aggregate still had an ample volume of reserves. The Board's action was precautionary in character and placed the System in a position where an injurious credit expansion if it should occur could be controlled by open-market operations and discount-rate policy. To quote from the statement issued by the Board at the time:

> . . . The section of the law which authorizes the Board to change reserve requirements for member banks states that when this power is used it shall be "in order to prevent injurious credit expansion or contraction." The significance of this language is that it places responsibility on the Board to use its power to change reserve requirements not only to counteract an injurious credit expansion or contraction after it has developed, but also to anticipate and prevent such an expansion or contraction.
>
> It is the Board's expectation that, with approximately 500 million dollars of excess reserves remaining with the banks, credit conditions will continue to be easy. At the same time the Reserve System will be in a position to take promptly such action as may be desirable to ease or tighten credit conditions through open-market and rate policy.
>
> . . . The Board's action does not reduce the large volume of existing funds

available for investment by depositors, and should not, therefore, occasion an advance in long-term interest rates or a restrictive policy on the part of institutional and other investors in meeting the needs for sound business, industrial and agricultural credit.

In the spring of 1937, the rapid expansion of business slowed down and there was a sharp slump in the Government security market. The Board, as already mentioned, had raised reserve requirements as a precautionary measure in order to place itself in closer touch with the market, at the same time leaving the banks a substantial aggregate volume of excess reserves. In order to arrest the tendency of individual banks to meet temporary actual or anticipated shortages of reserves through liquidation of securities, the Federal Reserve System in April increased its holdings of Government securities by about 100 million dollars, in accordance with the policy, announced when reserve requirements were increased, of using open-market operations as a means of regulating conditions in the money market.

In the spring of 1938, as part of a general move by the Government to combat a rapid decline in business activity, the United States Treasury abandoned the policy of placing incoming gold in an inactive account and discontinued that account, and the Board of Governors at the same time reduced by about one-eighth, or 750 million dollars, the reserve requirements for member banks. Since that time excess reserves of these banks have increased to more than 6 billion dollars.

RELATION TO CAPITAL MARKET

In the last few years the Federal Reserve System has had little occasion or opportunity to exercise an influence on credit conditions. The extremely low level of interest rates and the large volume of excess reserves and of deposits have made further easing unnecessary, while at the same time the incompleteness of business recovery and the absence of speculative developments have made it unnecessary and undesirable to do anything to tighten credit conditions. In these years the System's operations have been directed largely toward contributing to the maintenance of orderly conditions in the bond market. Recognition of the System's measure of responsibility

for these conditions is indicated by the following quotation from the *Annual Report* for 1937:

> . . . In recent years the bond market has become a much more important segment of the open money market, and banks, particularly money-market banks, to an increasing extent use their bond portfolios as a means of adjusting their cash position to meet demands made upon them. At times when the demands increase they tend to reduce their bond portfolios and at times when surplus funds are large they are likely to expand them. Since prices of long-term bonds are subject to wider fluctuations than those of short-term obligations, the increased importance of bonds as a medium of investment for idle bank funds makes the maintenance of stable conditions in the bond market an important concern of banking administration.

LIMITATIONS ON EXISTING POWERS

So long as business activity does not increase to a more normal level, and there is no evidence of speculative developments or of excessive use of credit, the accumulation of excess reserves at member banks does not in itself constitute a dangerous development, even though it may contain elements of danger in the future. Consequently the System's open-market operations in recent years have been confined chiefly to shifts from short- to long-term securities in its portfolio, or the reverse, in accordance with conditions in the bond market. In the summer of 1939 the System's portfolio of United States Government securities declined somewhat, because it was decided to permit maturing Treasury bills to be repaid without replacement whenever such replacement would either require paying a premium above a no-yield basis or would cause disturbance in the money market. United States Government securities during the period have been strong at the highest level of prices and the lowest level of yields on record. At the time of the outbreak of the present World War, there was a sharp fall in the prices of United States Government securities, and the Federal Reserve System made large purchases of these securities in the open market for the purpose of preventing disorderly conditions and contributing to stability in the capital market. Since that time United States Government security prices have advanced steadily, there has been a strong demand for them in the market, and the system has disposed of some of its holdings.

As the result principally of world conditions that have brought a huge amount of gold to this country, member bank reserves in recent years have increased to a point where these banks are in position to double their outstanding volume of credit without having to resort to the Federal Reserve Banks. On the basis of their own reserves the Federal Reserve Banks have almost unlimited power of further expanding the credit base, and the United States Treasury also has authority in various ways to add to bank reserves.[1] On the side of restraint, however, existing powers are limited. The Treasury can not contract the credit base without increasing the public debt, and the Federal Reserve System's power to absorb bank reserves is limited to its unused power of raising reserve requirements, the use of which would absorb about one billion dollars of reserves, together with its power to dispose of the 2.2 billion dollars of securities in its portfolio. As against existing excess reserves of 6 billion dollars and probable further additions through gold imports, the System's powers of absorbing reserves are clearly inadequate. If an injurious credit expansion should get under way, the Federal Reserve System would not be in position to prevent its development.

The funds accumulating in the member banks are not inflationary so long as they are held in cold storage. The amount of deposits and of reserves in existence at the present time is the largest in the history of the country, and a large part of them are held in idleness. In fact, there appears to have developed among some bankers a feeling that it is prudent to maintain a substantial volume of reserves in excess of legal requirements. If, however, this situation and attitude should change and an inflationary development should get started, the System would be powerless to arrest its progress.

[1] In the early 1930's the Secretary of the Treasury and the President were given many different powers to combat the disastrous deflation which was raging at that time. The powers, the exercise of which would add to member bank reserves, have remained largely unused. Theoretically their use to the maximum authorized by law could add at the present time as much as 14 billion dollars to the existing volume of member bank reserves. Of this amount about 4 billions could result from disbursing the Stabilization Fund and the issuance of silver certificates against present holdings of silver bullion, and 10 billions from the issuance of 3 billions of United States notes, authorized by law, plus the revaluation to the maximum permitted of the gold and the silver dollar and the disbursement of the resulting increments.

This state of affairs presents the following alternative courses of action: (1) to give the monetary authorities sufficient powers to control the volume of reserves and of deposits, either by finding some way of reducing existing bank reserves, or by authorizing the authorities to absorb them into required reserves; (2) to give banking authorities much greater powers than now exist to regulate directly the volume and character of bank loans and investments, that is, further to limit private discretion in banking; or (3) to permit reserves and deposits to expand without restraint in the hope that a dangerous inflation can be prevented by other than monetary means. It is not the object of this paper to discuss the possible techniques or the relative wisdom of these three courses of action.

TABLES

(Throughout these studies December 31, 1939 is used as the termination date for annual figures and June 30, 1940 for monthly and daily figures.)

1. Bank Notes and Deposits, 1834–1890

(In millions of dollars)

Year[a]	Bank Notes[b]	Deposits[c]	Year[a]	Bank Notes[b]	Deposits[c]
1834	95	76	1865	289	547
			1866	296	657
1835	104	83	1867	291	657
1836	140	115	1868	298	689
1837	149	127	1869	294	673
1838	116	85			
1839	135	90	1870	291	679
			1871	313	817
1840	107	76	1872	331	875
1841	107	65	1873	340	908
1842	84	62	1874	341	886
1843	59	56			
1844	75	85	1875	342	948
			1876	317	898
1845	90	88	1877	302	958
1846	106	97	1878	313	863
1847	106	92	1879	321	1,144
1848	129	103			
1849	115	91	1880	337	1,143
			1881	350	1,417
1850	131	110	1882	352	1,506
1851	155	129	1883	348	1,557
1852	161	137	1884	331	1,507
1853	146	146			
1854	205	188	1885	309	1,653
			1886	308	1,688
1855	187	190	1887	277	1,995
1856	196	213	1888	245	2,019
1857	215	230	1889	207	2,296
1858	155	186			
1859	193	260	1890	182	2,442
1860	207	254			
1861	202	257			
1862	184	296			
1863	239	394			
1864	210	427			

[a] Data for June 30 or nearest available date.

[b] Data are aggregates for State and national banks, compiled as follows: for 1834-59 from the *Annual Report of the Comptroller of the Currency*, 1931, Vol. II, p. 1018; for 1860-90 from the *Annual Report of the Secretary of the Treasury*, 1928, p. 554.

[c] Data are aggregates for State and national banks, compiled as follows: State banks, for 1834-51 and 1853 63, from the *Annual Report of the Comptroller of the Currency*, 1920, p 847; for 1852 and 1864-74, partly estimated; for 1875-90, *Report of the National Monetary Commission*, Vol. 21, p. 31. Deposits of unincorporated and of all savings banks are excluded for 1864-90; such deposits are not believed to have been large prior to that time. While all figures for bank deposits in the early period are known to be fragmentary, they are considered adequate for the purpose of this study.

National banks, for 1864-66, derived from the *Annual Report of the Comptroller of the Currency*, 1879, Vol. I, p. 3, and represent all deposits of national banks less interbank deposits; for 1867-90 the figures represent a total of individual bank deposits of national banks as shown in *Report of the National Monetary Commission*, Vol. 21, p. 31, plus Government deposits at all banks as shown in the *Annual Report of the Comptroller of the Currency*, 1919, Vol. I, p. 187. Comparisons reveal that Government deposits reported as held by banks were largely in the possession of national banks.

2. Commercial Banks in the United States, 1834–1940[a]

Year[b]	State Banks[c]	National Banks	Unincorporated Banks[d]	Year[b]	State Banks[c]	National Banks	Unincorporated Banks[d]
1834	506	—		1890	2,250	3,484	4,305
				1891	2,743	3,652	4,230
1835	704	—		1892	3,773	3,759	4,004
1836	713	—		1893	4,188	3,807	4,031
1837	788	—		1894	4,188	3,770	3,844
1838	829	—					
1839	840	—		1895	4,369	3,715	3,924
				1896	4,279	3,689	3,810
1840	901	—		1897	4,420	3,610	3,806
1841	784	—		1898	4,486	3,581	3,853
1842	692	—		1899	4,738	3,582	4,168
1843	691	—					
1844	696	—		1900	5,007	3,731	5,187
				1901	5,651	4,163	5,060
1845	707	—		1902	6,171	4,532	4,976
1846	707	—		1903	6,890	4,935	5,417
1847	715	—		1904	7,970	5,327	5,484
1848	751	—					
1849	782	—		1905	9,018	5,664	5,291
				1906	10,220	6,046	4,823
1850	824	—		1907	11,469	6,422	4,947
1851	879	—		1908	12,803	6,817	4,576
1852	815	—		1909	13,421	6,886	4,407
1853	750	—					
1854	1,208	—		1910	14,348	7,138	3,669
				1911	15,322	7,270	3,683
1855	1,307	—		1912	16,037	7,366	3,406
1856	1,398	—		1913	16,841	7,467	3,213
1857	1,416	—		1914	17,498	7,518	3,062
1858	1,422	—					
1859	1,476	—		1915	17,748	7,597	2,737
				1916	18,253	7,571	1,968
1860	1,562	—		1917	18,710	7,599	1,852
1861	1,601	—		1918	19,404	7,699	1,846
1862	1,492	—		1919	19,646	7,779	1,817
1863	1,466	66					
1864	1,089	467		1920	20,635	8,024	1,736
				1921	21,267	8,150	1,242
1865	349	1,294		1922	20,789	8,244	1,157
1866	297	1,634		1923	20,654	8,236	1,080
1867	272	1,636		1924	20,028	8,080	1,008
1868	247	1,640					
1869	259	1,619		1925	19,573	8,066	915
				1926	18,994	7,972	860
1870	325	1,612		1927	18,119	7,790	792
1871	452	1,723		1928	17,440	7,685	737
1872	566	1,853		1929	16,728	7,530	685
1873	277	1,968					
1874	368	1,983		1930	15,798	7,247	598
				1931	14,323	6,800	504
1875	586	2,076		1932	12,137	6,145	428
1876	671	2,091		1933	8,908	4,897	330
1877	631	2,078	2,432	1934	9,604	5,417	236
1878	510	2,056	2,586				
1879	648	2,048	2,545	1935	9,752	5,425	246
				1936	9,682	5,368	136
1880	650	2,076	2,573	1937	9,585	5,293	85
1881	683	2,115	2,799	1938	9,409	5,242	73
1882	704	2,239	3,107	1939	9,262	5,203	64
1883	788	2,417	3,306				
1884	852	2,625	3,458	1940	9,238	5,164	57
1885	1,015	2,689	3,456				
1886	891	2,809	3,689				
1887	1,471	3,014	3,966				
1888	1,523	3,120	4,064				
1889	1,791	3,239	4,215				

For footnotes, see bottom of opposite page.

3. Suspensions of Incorporated Commercial Banks in the United States, 1892–1939[a]

Year[b]	National Banks	State Banks[c]	Year[b]	National Banks	State Banks[c]
1892	12	32	1915	20	93
1893	69	228	1916	8	32
1894	23	39	1917	5	29
			1918	2	35
1895	34	51	1919	2	59
1896	34	66			
1897	28	64	1920	7	136
1898	11	19	1921	52	409
1899	10	8	1922	49	294
			1923	90	533
1900	5	14	1924	122	616
1901	9	15			
1902	4	30	1925	118	461
1903	13	22	1926	123	801
1904	22	53	1927	91	545
			1928	57	422
1905	20	25	1929	64	564
1906	6	34			
1907	12	58	1930	161	1,131
1908	19	83	1931	409	1,804
1909	8	37	1932	276	1,140
			1933	1,101	2,790
1910	6	40	1934	1	43
1911	5	58			
1912	6	51	1935	4	30
1913	13	75	1936	1	42
1914	15	107	1937	4	54
			1938	1	51
			1939	4	37

[a] Data for 1892–1920 compiled by the Federal Reserve System Committee on Branch, Group, and Chain Banking and incorporated in an unpublished study, *Bank Suspensions in the United States, 1892–1932*, p. 132; for 1921–1939, by the Board of Governors and published in the *Federal Reserve Bulletin* for September 1937, pp. 869–871, and for December 1940, p. 1292. In making comparisons between State and national bank suspensions it should be remembered that in almost all years there were many more State than national banks in existence. See Table 2, p. 418.

[b] Figures are annual totals for the years ending December 31 and are for continental United States only.

[c] Excludes unincorporated and mutual savings banks.

Footnotes for Table 2 on opposite page:

[a] Data for the years 1834–1931 compiled by the Federal Reserve System Committee on Branch, Group, and Chain Banking and incorporated in an unpublished study, *Changes in the Number and Size of Banks in the United States, 1834–1931*, pp. 91–93; for the years 1932–1940, by the Board of Governors and published in current issues of the *Federal Reserve Bulletin*, except data for unincorporated banks for the years 1932 and 1933, which are based on figures appearing in annual reports of the Comptroller of the Currency.

[b] All figures as of June 30 or nearest available date.

[c] Excludes mutual savings banks.

[d] Data for years prior to 1877 not available.

4. Currency in Circulation, by Kind, 1860–1940[a]

(In millions of dollars)

Year[b]	All Kinds[a]	State Bank Notes	National Bank Notes	Gold and Treasury Currency[c]	Federal Reserve Currency
1860	435	207	—	228	—
1861	484	202	—	282	—
1862	603	184	—	419	—
1863	838	239	—	599	—
1864	838	179	31	629	—
1865	847	143	146	558	—
1866	777	20	276	481	—
1867	736	4	287	444	—
1868	743	3	294	445	—
1869	737	3	292	443	—
1870	772	2	289	481	—
1871	793	2	311	480	—
1872	828	2	329	497	—
1873	838	1	339	497	—
1874	863	1	340	522	—
1875	833	1	341	492	—
1876	807	1	316	489	—
1877	814	1	301	511	—
1878	820	1	312	507	—
1879	819	—	321	498	—
1880	973	—	337	636	—
1881	1,114	—	350	764	—
1882	1,174	—	352	821	—
1883	1,230	—	348	882	—
1884	1,244	—	331	913	—
1885	1,293	—	309	984	—
1886	1,253	—	308	945	—
1887	1,318	—	277	1,042	—
1888	1,372	—	245	1,127	—
1889	1,380	—	207	1,172	—
1890	1,429	—	182	1,248	—
1891	1,497	—	162	1,335	—
1892	1,601	—	167	1,434	—
1893	1,597	—	175	1,422	—
1894	1,661	—	200	1,461	—
1895	1,602	—	207	1,395	—
1896	1,506	—	215	1,291	—
1897	1,641	—	226	1,415	—
1898	1,838	—	223	1,615	—
1899	1,904	—	238	1,666	—
1900	2,081	—	300	1,782	—
1901	2,203	—	345	1,858	—
1902	2,279	—	345	1,934	—
1903	2,400	—	400	2,000	—
1904	2,553	—	433	2,120	—
1905	2,623	—	480	2,143	—
1906	2,775	—	548	2,227	—
1907	2,814	—	589	2,225	—
1908	3,079	—	632	2,447	—
1909	3,149	—	666	2,483	—
1910	3,149	—	684	2,466	—
1911	3,263	—	688	2,575	—
1912	3,335	—	705	2,630	—
1913	3,419	—	716	2,703	—
1914	3,459	—	715	2,744	—

For footnotes, see p. 421.

4. Currency in Circulation, by Kind, 1860–1940[a]—*Continued*

(In millions of dollars)

Year[b]	All Kinds[c]	State Bank Notes	National Bank Notes	Gold and Treasury Currency[c]	Federal Reserve Currency
1915.....	3,320	—	782	2,467	71
1916.....	3,649	—	716	2,782	151
1917.....	4,066	—	691	2,865	510
1918.....	4,482	—	691	2,081	1,709
1919.....	4,877	—	639	1,632	2,605
1920.....	5,468	—	690	1,528	3,250
1921.....	4,911	—	721	1,460	2,730
1922.....	4,463	—	728	1,524	2,211
1923.....	4,823	—	711	1,857	2,255
1924.....	4,849	—	734	2,262	1,853
1925.....	4,815	—	682	2,490	1,643
1926.....	4,885	—	651	2,549	1,685
1927.....	4,851	—	650	2,494	1,707
1928.....	4,797	—	650	2,515	1,630
1929.....	4,746	—	653	2,396	1,696
1930.....	4,522	—	651	2,466	1,405
1931.....	4,822	—	648	2,462	1,711
1932.....	5,695	—	701	2,211	2,783
1933.....	5,721	—	920	1,614	3,187
1934.....	5,373	—	902	1,262	3,210
1935.....	5,567	—	704	1,558	3,304
1936.....	6,241	—	366	1,821	4,054
1937.....	6,447	—	269	1,971	4,206
1938.....	6,461	—	217	2,100	4,144
1939.....	7,047	—	186	2,351	4,510
1940.....	7,848	—	165	2,497	5,185

[a] Data compiled by the Secretary of the Treasury and published in his annual report for 1928, pp. 554–555, and for 1940, p. 810. For 1860–1914 the figures include currency outside the Treasury and for 1915–1940, currency outside the Treasury and Federal Reserve Banks. In all cases a dash indicates zero.

[b] Figures as of June 30 or nearest available date.

[c] Includes in 1862 an estimated 50 million dollars of demand notes which were not "greenbacks" (see p. 40 of pamphlet issued by the Treasury Department, *Information Respecting United States Bonds, Paper Currency and Coin, Production of Precious Metals*, etc., revised July 1, 1915); excludes for 1862–1878 Treasury paper currency (shown on p. 554 of the *Annual Report of the Secretary of the Treasury*, 1928) on the ground that it represents interest-bearing notes not payable on demand; excludes for 1934–1940 gold coin amounting to 287 million dollars previously reported as in circulation (see *Annual Report of the Federal Reserve Board*, 1934, p. 67, Note 2).

5. Gold and Treasury Currency in Circulation, 1860–1940[a]

(In millions of dollars)

Year[b]	Gold Coin and Certificates	Silver Dollars and Certificates[c]	United States Notes[d]	Subsidiary and Minor Coin[e]
1860	207	—	—	21
1861	266	—	—	16
1862	283	—	123	13
1863	260	—	312	27
1864	185	—	415	29
1865	149	—	379	30
1866	120	—	328	33
1867	92	—	319	33
1868	81	—	329	35
1869	92	—	315	36
1870	113	—	325	43
1871	90	—	343	47
1872	103	—	346	48
1873	97	—	348	52
1874	97	—	372	53
1875	82	—	350	60
1876	99	—	331	59
1877	110	—	338	63
1878	110	1	321	75
1879	126	9	302	61
1880	234	26	328	48
1881	321	68	328	47
1882	363	87	325	46
1883	405	108	323	46
1884	412	137	319	45
1885	468	141	331	44
1886	434	141	324	46
1887	468	198	327	49
1888	512	257	308	50
1889	494	311	316	51
1890	505	354	335	54
1891	527	407	343	58
1892	550	482	339	63
1893	501	525	331	65
1894	562	514	326	59
1895	528	488	319	60
1896	497	478	256	60
1897	555	493	307	60
1898	694	547	310	64
1899	712	556	329	69
1900	812	550	318	102
1901	877	544	330	107
1902	939	545	334	116
1903	995	546	334	125
1904	1,112	545	334	129
1905	1,136	538	332	137
1906	1,185	556	336	150
1907	1,162	558	342	163
1908	1,396	547	339	165
1909	1,414	554	340	175
1910	1,394	555	335	182
1911	1,520	529	339	187
1912	1,554	542	338	196
1913	1,612	544	337	210
1914	1,638	551	338	217
1915	1,409	530	310	218
1916	1,675	545	328	234
1917	1,749	542	312	262
1918	1,048	449	292	292
1919	803	244	274	311
1920	734	176	278	340
1921	648	226	259	327
1922	589	325	292	318
1923	790	423	303	341
1924	1,194	420	298	350

For footnotes, see continuation of table on p. 423.

5. Gold and Treasury Currency in Circulation, 1860–1940[a]—*Continued*

(In millions of dollars)

Year[b]	Gold Coin and Certificates	Silver Dollars and Certificates[c]	United States Notes[d]	Subsidiary and Minor Coin[e]
1925	1,407	438	283	362
1926	1,449	431	295	374
1927	1,392	426	292	384
1928	1,396	432	298	389
1929	1,303	432	262	399
1930	1,352	427	288	399
1931	1,360	412	299	391
1932	1,168	384	289	370
1933	586	390	269	369
1934	150[d]	433	280	399
1935	117	735	285	421
1936	101	991	278	451
1937	88	1,117	281	485
1938	79	1,271	262	488
1939	72	1,497	266	516
1940	67	1,629	248	553

[a] See note a of preceding table.
[b] Figures as of June 30 or nearest available date.
[c] Includes Treasury notes of 1890.
[d] See note c of preceding table.
[e] Includes fractional currency.

6. Banks and Their Deposits, December 31, 1939[a]

By Kind of Bank

Kind of Bank	Banks	Deposits (In Millions)	Percentage Distribution	
			Banks	Deposits
All Banks	**15,034**	**$68,229**	**100.0**	**100.0**
Insured	**13,585**	**57,478**	**90.4**	**84.2**
Federal Reserve member:				
National	5,187	31,559	34.5	46.2
State[b]	1,175	17,781	7.8	26.0
Nonmember:				
Mutual savings	51	1,409	0.4	2.1
Other State[b]	7,172	6,729	47.7	9.9
Noninsured	**1,449**	**10,751**	**9.6**	**15.8**
Mutual savings	500	9,114	3.3	13.4
Other State[b]	887	886	5.9	1.3
Private[c]	62[d]	751[e]	.4	1.1

[a] Data compiled by the Board of Governors.

[b] The statistics of insured and noninsured "State" banks include stock savings banks, trust companies (73 with no deposits), 44 cash depositories (all in South Carolina), 105 Morris Plan and other industrial banks, 10 branches of foreign banks, and 21 inactive banks, trust companies, and miscellaneous financial institutions. The last two groups are included because they are counted as "State banks" by the banking departments of the States in which they are located. Their inclusion does not appreciably affect the totals, but their exclusion would make it difficult to reconcile the State bank totals with those published by various State banking departments.

[c] Comprises only private banks operating under some degree of State supervision. Reports indicate that in three or four States there are a number of small private banks that do not report to State banking departments in spite of the provisions of Sec. 21(a) of the Banking Act of 1933, as amended, but adequate statistical data thereon are not available.

[d] One private bank is insured and it is included in "other State" banks under "insured" banks.

[e] Reduced to 146 million dollars by June 29, 1940, because the largest private bank had converted into a trust company.

7. Percentage Distribution of Assets of Different Classes of Insured Commercial Banks, December 31, 1939[a]

1. Percentage Distribution of Assets, by Type

Class of Bank	Cash Assets[b]	Loans	United States Government Securities[c]	Other Securities	Other Assets
Central reserve city member:					
New York	40.8	20.1	29.1	7.7	2.3
Chicago	40.2	15.8	33.5	9.2	1.3
Reserve city member	34.4	27.1	26.4	8.9	3.2
Country member	30.9	30.4	20.2	14.7	3.8
Insured nonmember	26.9	37.3	15.9	15.5	4.4

2. Percentage Distribution of Loans, by Type

Class of Bank	Commercial, Industrial, and Agricultural Loans[d]	Loans for Purchasing or Carrying Securities	Real-Estate Loans	All Other Loans
Central reserve city member:				
New York	57.5	24.3	4.0	14.2
Chicago	68.3	18.8	2.3	10.6
Reserve city member	46.5	6.4	25.0	22.1
Country member	37.9	5.1	31.0	26.0
Insured nonmember	29.5	4.1	40.7	25.7

[a] For underlying statistical data, including statistics by States, see *Member Bank Call Report* and *Assets and Liabilities of Operating Insured Banks*, both as of Dec. 30, 1939. Corresponding distributions for noninsured commercial banks are not available, but noninsured banks hold only about 3 per cent of the total assets of all commercial banks.

[b] Comprises vault cash, reserve balances with Federal Reserve Banks, balances with other banks, and cash items in process of collection.

[c] Direct and guaranteed.

[d] Includes open-market paper.

8. PERCENTAGE DISTRIBUTION OF MEMBER BANKS BY RATIOS OF LOANS, SECURITIES, AND CASH ASSETS TO TOTAL ASSETS, AND BY SIZE OF BANK, 1939[a]

RATIO OF SPECIFIED ASSETS TO $100 OF TOTAL ASSETS	PERCENTAGE DISTRIBUTION OF ALL MEMBER BANKS AMONG DEPOSIT GROUPS					
	All Deposit Groups	$250,000 and Under	$250,000 to $1,000,000	$1,000,000 to $5,000,000	$5,000,000 to $50,000,000	Over $50,000,000
Loans	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $10	1.7	.6	1.3	1.8	2.8	3.3
10-20	12.7	3.5	8.4	16.1	20.6	27.5
20-30	24 7	11.9	19.9	29.5	32.2	38.3
30 40	27.0	26.0	27.2	26.6	28.3	25.9
40-50	20.1	29.9	24.2	17.0	12 4	5.0
50 60	9.6	19.0	12.7	6.8	3.0	—
60 and over	4.2	9.1	6.3	2.2	.7	—
Securities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $10	5.8	17.7	7.3	3.6	1.5	—
10-20	16.5	24.5	22.0	11.7	9.4	5.8
20 30	22.9	31.0	23.7	20.8	21.8	22.5
30-40	23.5	16.2	22.0	24.5	28.5	32.5
40-50	18.0	8.0	14.5	21.2	24.4	29.2
50-60	9.6	2.6	7.7	12.7	11.2	7.5
60 and over	3.7	—	2.8	5.5	3.2	2.5
Cash assets	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Less than $10	.1	—	b	.1	—	—
10 20	19.9	14.1	21.3	21.3	16.5	3.3
20 30	37.0	38.1	37.4	38.9	32.2	22.5
30 40	26.9	28.1	26.3	25.1	30.7	44.2
40 50	12.0	14.3	11.0	10.7	15.8	25.0
50 60	3.3	5.0	3.1	3.1	3.6	4.2
60 and over	.8	.4	.9	.8	1.2	.8

[a] Data compiled by the Federal Reserve Banks and the Board of Governors. Dash indicates zero.
[b] Less than .1 per cent.

9. Commercial Banks and Their Deposits, December 31, 1939[a]
By Kind and Size of Bank

Kind and Size of Bank	Banks[b]	Deposits (In Millions)	Percentage Distribution	
			Banks	Deposits
All commercial	**14,389**	**$56,758**	**100.0**	**100.0**
Deposits of $250,000 and under	3,239	501	22.6	.9
250,000– 500,000	3,226	1,173	22.5	2.1
500,000– 1,000,000	3,052	2,168	21.3	3.8
1,000,000– 2,000,000	2,240	3,148	15.6	5.6
2,000,000– 5,000,000	1,497	4,563	10.5	8.0
5,000,000–50,000,000	947	12,272	6.6	21.6
Over $50,000,000	133	32,933	.9	58.0
National	**5,187**	**31,559**	**100.0**	**100.0**
Deposits of $250,000 and under	362	66	7.0	.2
250,000– 500,000	890	336	17.1	1.1
500,000– 1,000,000	1,260	916	24.3	2.9
1,000,000– 2,000,000	1,161	1,631	22.4	5.1
2,000,000– 5,000,000	875	2,678	16.9	8.5
5,000,000–50,000,000	559	6,968	10.8	22.1
Over $50,000,000	78	18,964	1.5	60.1
State member	**1,175**	**17,781**	**100.0**	**100.0**
Deposits of $250,000 and under	70	13	6.0	.1
250,000– 500,000	185	69	15.8	.4
500,000– 1,000,000	258	187	22.0	1.1
1,000,000– 2,000,000	200	286	17.1	1.6
2,000,000– 5,000,000	192	611	16.4	3.4
5,000,000–50,000,000	218	3,198	18.6	18.0
Over $50,000,000	48	13,417	4.1	75.4
Nonmember	**8,027**	**7,418**	**100.0**	**100.0**
Deposits of $250,000 and under	2,807	422	35.2	5.7
250,000– 500,000	2,151	768	27.0	10.3
500,000– 1,000,000	1,534	1,065	19.2	14.4
1,000,000– 2,000,000	879	1,231	11.0	16.6
2,000,000– 5,000,000	430	1,274	5.4	17.2
5,000,000–50,000,000	170	2,106	2.1	28.4
Over $50,000,000	7	552	.1	7.4

[a] Data compiled by the Board of Governors. Excludes 63 private banks, 10 branches of foreign banks, and 21 inactive institutions sometimes included in State banking statistics. (See Table 6, note b, p. 423.)

[b] The totals in this column include 2 national banks, 4 State member banks, and 49 nonmember banks which have no deposits or for which deposit figures are not available. To this extent the "Banks" column is not comparable with the "Deposits" column.

10. Commercial Banking Offices, December 31, 1939[a]
By Kind of Bank and by Population of Place in Which Located

Bank and Population Groups	Banks Plus Branches	Banks	Branches	
			In Head-Office Cities	Outside Head-Office Cities
All commercial	**17,880**	**14,389**	**1,623**	**1,868**
Under 500 population	3,029	2,636	—	393
500– 999	2,824	2,517	—	307
1,000– 2,499	3,421	3,083	3	335
2,500– 9,999	3,542	3,140	11	391
10,000– 49,999	1,951	1,677	60	214
50,000– 99,999	512	369	73	70
100,000–499,999	1,074	601	409	64
500,000 and over	1,527	366	1,067	94
National	**6,705**	**5,187**	**681**	**837**
Under 500 population	340	303	—	37
500– 999	705	626	—	79
1,000– 2,499	1,397	1,227	—	170
2,500– 9,999	1,836	1,588	2	246
10,000– 49,999	1,075	923	27	125
50,000– 99,999	232	168	24	40
100,000–499,999	482	234	198	50
500,000 and over	638	118	430	90
State member	**2,177**	**1,175**	**771**	**231**
Under 500 population	94	81	—	13
500– 999	136	116	—	20
1,000– 2,499	272	237	—	35
2,500– 9,999	357	282	2	73
10,000– 49,999	276	198	20	58
50,000– 99,999	110	55	33	22
100,000–499,999	274	97	168	9
500,000 and over	658	109	548	1
Nonmember	**8,998**	**8,027**	**171**	**800**
Under 500 population	2,595	2,252	—	343
500– 999	1,983	1,775	—	208
1,000– 2,499	1,752	1,619	3	130
2,500– 9,999	1,349	1,270	7	72
10,000– 49,999	600	556	13	31
50,000– 99,999	170	146	16	8
100,000–499,999	318	270	43	5
500,000 and over	231	139	89	3

[a] Data compiled by the Board of Governors. Excludes 63 private banks, 10 branches of foreign banks, and 21 inactive institutions sometimes included in State banking statistics.

11. Member Bank Earnings and Capital Ratios, 1939[a]
By Size of Bank

Size Group—Total Deposits	Average Net Current Earnings		Total Capital Accounts per $100 of Total Assets
	Per $100 of Total Assets	Per $100 of Total Capital Accounts	
$250,000 and under	$1.40	$7.10	$21.30
250,000– 1,000,000	1.20	9.00	14.60
1,000,000– 5,000,000	1.00	8.70	12.80
5,000,000–50,000,000	.80	8.10	11.00
Over $50,000,000	.70	7.40	9.70
All member banks	1.10	8.60	13.90

[a] Ratios compiled by the Board of Governors. Corresponding data for all nonmember banks are not available. Ratios shown are averages of ratios computed for each member bank. (For further details, see *Federal Reserve Bulletin* for June 1940, pp. 588–601.)

12. Banks Operating Branches and Their Branches, 1900–1939[a]

Year[b]	Banks Operating Branches			Branches[c]						
				All Branches	National			State		
	All Banks	National	State		Total	In Head-Office City	Outside Head-Office City	Total	In Head-Office City	Outside Head-Office City
1900....	87	5	82	119	5	1	4	114	24	90
1905....	196	5	191	350	5	1	4	345	134	211
1910....	292	9	283	548	12	1	11	536	270	266
1915....	397	12	385	785	26	15	11	759	420	339
1920....	530	21	509	1,281	63	41	22	1,218	732	486
1921....	547	23	524	1,455	72	50	22	1,383	854	529
1922....	610	55	555	1,801	140	118	22	1,661	1,038	623
1923....	671	91	580	2,054	204	181	23	1,850	1,146	704
1924....	706	112	594	2,297	256	233	23	2,041	1,281	760
1925....	719	130	589	2,524	318	296	22	2,206	1,428	778
1926....	743	148	595	2,701	421	384	37	2,280	1,493	787
1927....	739	153	586	2,912	723	433	290	2,189	1,525	664
1928....	774	171	603	3,136	934	595	339	2,202	1,545	657
1929....	763	167	596	3,349	995	650	345	2,354	1,623	731
1930....	750	166	584	3,518	1,042	703	339	2,476	1,684	792
1931....	722	164	558	3,463	1,110	714	396	2,353	1,585	768
1932....	680	157	523	3,191	1,220	831	389	1,971	1,233	738
1933....	584	146	438	2,780	1,121	677	444	1,659	998	661
1934....	724	176	548	3,002	1,243	691	552	1,759	976	783
1935....	816	181	635	3,151	1,329	686	643	1,822	958	864
1936....	853	188	665	3,266	1,398	679	719	1,868	960	908
1937....	903	194	709	3,407	1,485	690	795	1,922	956	966
1938....	917	194	723	3,440	1,499	687	812	1,941	943	998
1939....	934	195	739	3,491	1,518	681	837	1,973	942	1,031

[a] Data for 1900–1931 compiled by the Federal Reserve System Committee on Branch, Group, and Chain Banking and incorporated in an unpublished study *Branch Banking in the United States*, pp. 3 and 6; for 1932–1939 compiled by the Board of Governors and published in the *Federal Reserve Bulletin*. Mutual savings and private banks and their branches are excluded. Morris Plan and other industrial banks operating branches are included as follows: Prior to 1933 only those reported in the abstracts published by State banking departments; in 1933 and 1934, 12 banks operating 27 branches in head-office city and 9 branches outside head-office city; in 1935 and 1936, 13 banks operating 27 branches in head-office city and 11 branches outside head-office city; in 1937, 13 banks operating 29 branches in head-office city and 11 branches outside head-office city; in 1938, 12 banks operating 29 branches in head-office city and 10 branches outside head-office city, and in 1939, 13 banks operating 31 branches in head-office city and 11 branches outside head-office city.

[b] Prior to 1924 the figures are not for any uniform month. For 1924 and 1927–1931 they are for June, and for 1925–1926 and 1932–1939, for December.

[c] Some State laws make a distinction between "branches" and other types of "additional offices." This table adheres to the definition of "branch" given in Sec. 5155, U.S.R.S., which includes "any branch bank, branch office, branch agency, additional office, or any branch place of business....at which deposits are received, or checks paid, or money lent."

Footnotes for Table 13 on opposite page:

[a] Data compiled by the Board of Governors. Mutual savings banks and private banks and their branches are excluded, but 10 branches of foreign banks and 21 inactive institutions sometimes included in State banking statistics are included here. In the latter respect the totals for commercial banks and banking offices differ from those in Tables 9 and 10, pp. 426–27. In all cases a dash indicates zero.

[b] See note c, Table 12 above.

[c] Includes all banks and branches.

13. Geographic Distribution of Branch Banking, December 31, 1939[a]

(Deposits in thousands of dollars)

State and Geographic Division	All Commercial Banks		Commercial Banks Operating Branches		Branches[b]			All Commercial Banking Offices[c]	Branches As a Percentage of Commercial Banking Offices
	Number	Deposits	Number	Deposits	In Head-Office City	Outside Head-Office City	Total		
United States	**14,420**	**56,951,771**	**934**	**30,812,734**	**1,623**	**1,868**	**3,491**	**17,911**	**19.5**
New England	**562**	**3,424,548**	**89**	**2,054,063**	**118**	**121**	**239**	**801**	**29.8**
Maine	69	204,581	20	84,461	4	53	57	126	45.2
New Hampshire	64	90,323	2	1,141	—	2	2	66	3.0
Vermont	76	111,667	8	19,506	—	12	12	88	13.7
Massachusetts	198	2,050,278	42	1,430,873	92	24	116	314	36.9
Rhode Island	26	323,853	11	276,436	17	21	38	64	59.4
Connecticut	129	643,846	6	241,646	5	9	14	143	9.8
Middle Atlantic	**2,184**	**24,155,612**	**178**	**17,999,573**	**770**	**82**	**852**	**3,036**	**28.1**
New York	742	17,264,589	87	14,844,504	601	39	640	1,382	46.3
New Jersey	365	1,815,699	49	985,039	85	30	115	480	23.9
Pennsylvania	1,077	5,075,324	42	2,170,030	84	13	97	1,174	8.2
East North Central	**3,054**	**10,785,601**	**206**	**3,176,222**	**292**	**229**	**521**	**3,575**	**14.6**
Ohio	688	2,489,941	39	1,367,612	121	48	169	857	19.7
Indiana	492	937,017	39	265,932	25	39	64	556	11.5
Illinois	848	4,781,174	—	—	—	—	—	848	—
Michigan	452	1,622,290	47	1,141,945	128	34	162	614	26.4
Wisconsin	574	955,179	81	400,733	18	108	126	700	18.0
West North Central	**3,388**	**4,169,287**	**149**	**451,197**	**8**	**211**	**219**	**3,607**	**6.1**
Minnesota	680	956,224	2	288,081	6	—	6	686	0.9
Iowa	646	672,649	117	108,229	—	159	159	805	19.8
Missouri	633	1,617,246	—	—	—	—	—	633	—
North Dakota	167	76,598	14	3,317	—	20	20	187	10.7
South Dakota	165	99,399	14	34,105	—	32	32	197	16.2
Nebraska	423	334,973	2	17,465	2	—	2	425	0.5
Kansas	674	412,198	—	—	—	—	—	674	—
South Atlantic	**1,573**	**3,818,865**	**143**	**1,793,758**	**112**	**256**	**368**	**1,941**	**20.0**
Delaware	44	205,245	6	158,554	2	10	12	56	21.4
Maryland	177	732,173	25	471,897	37	41	78	255	30.6
District of Columbia	22	361,541	11	274,919	30	—	30	52	57.7
Virginia	315	635,325	40	285,566	21	51	72	387	18.6
West Virginia	181	296,837	1	1,024	—	1	1	182	0.5
North Carolina	228	508,060	43	235,419	8	118	126	354	35.6
South Carolina	150	163,370	6	71,695	3	19	22	172	12.8
Georgia	285	503,837	10	294,146	11	14	25	310	8.1
Florida	171	411,677	1	538	—	2	2	173	1.1
East South Central	**1,134**	**1,607,245**	**59**	**513,264**	**40**	**99**	**139**	**1,273**	**10.9**
Kentucky	412	487,338	13	170,250	20	8	28	440	6.4
Tennessee	300	577,454	19	238,187	17	32	49	349	14.0
Alabama	217	331,971	3	75,792	3	17	20	237	8.4
Mississippi	205	210,482	24	29,035	—	42	42	247	17.0
West South Central	**1,595**	**2,825,135**	**42**	**362,780**	**21**	**47**	**68**	**1,663**	**4.1**
Arkansas	217	200,818	14	15,452	—	15	15	232	6.5
Louisiana	145	551,354	28	347,328	21	32	53	198	26.8
Oklahoma	393	461,307	—	—	—	—	—	393	—
Texas	840	1,611,656	—	—	—	—	—	840	—
Mountain	**488**	**1,028,723**	**21**	**215,156**	**3**	**83**	**86**	**574**	**15.0**
Montana	111	149,910	—	—	—	—	—	111	—
Idaho	51	102,443	6	68,139	—	32	32	83	38.6
Wyoming	58	70,034	—	—	—	—	—	58	—
Colorado	145	344,499	—	—	—	—	—	145	—
New Mexico	41	66,136	4	5,070	—	6	6	47	12.8
Arizona	12	91,127	4	66,927	1	25	26	38	68.4
Utah	59	163,565	5	41,071	1	11	12	71	16.9
Nevada	11	41,009	2	33,949	1	9	10	21	47.6
Pacific	**442**	**5,137,555**	**47**	**4,246,721**	**259**	**740**	**999**	**1,441**	**69.3**
Washington	140	506,299	9	354,899	15	67	82	222	36.9
Oregon	74	318,356	4	249,086	11	55	66	140	47.1
California	228	4,312,900	34	3,642,736	233	618	851	1,079	78.8

For footnotes, see bottom of opposite page.

14. Classification of Banks Operating Branches and of Their Branches December 31, 1939[a]

1. By Size of Bank

Size Group—Total Deposits	Banks	Deposits (In Thousands)	Branches		
			Total	In Head-Office City	Outside Head-Office City
$250,000 and under	30[b]	$5,692	36	2	34
250,001– 500,000	119	45,283	139	—	139
500,001– 1,000,000	164	119,116	208	6	202
1,000,001– 2,000,000	134	189,118	202	10	192
2,000,001– 5,000,000	123	418,017	201	59	142
5,000,001– 10,000,000	103	756,641	224	107	117
10,000,001– 50,000,000	167	3,714,735	655	360	295
50,000,001-100,000,000	37	2,568,614	212	168	44
100,000,001-200,000,000	33	4,489,294	474	334	140
200,000,001-500,000,000	11	3,392,252	243	184	59
500,000,001 and over	13	15,113,972	897	393	504
All Groups	934	$30,812,734	3,491	1,623	1,868

2. By Population of Place in Which Located[c]

Population Group	Banks	Branches		
		Total	In Head-Office City	Outside Head-Office City
Under 500	86	393	—	393
500– 999	92	307	—	307
1,000– 2,499	135	338	3	335
2,500– 9,999	155	402	11	391
10,000– 49,999	132	274	60	214
50,000– 99,999	69	143	73	70
100,000-499,999	150	473	409	64
500,000 and over	115	1,161	1,067	94
All Groups	934	3,491	1,623	1,868

[a] Data compiled by the Board of Governors. Mutual savings and private banks and their branches are excluded. In all cases a dash indicates zero.

[b] Includes one trust company without deposits.

[c] Each branch classified by the size of place in which located; therefore, a branch included in a given population group is not necessarily operated by a bank included in the same population group.

Footnotes for Table 15 on opposite page:

[a] Data compiled by the Board of Governors. Mutual savings and private banks and their branches are excluded. In all cases a dash indicates zero.

[b] Chains operating in more than one State assigned to State containing "key" or largest bank, or majority of banks.

[c] For data on all banking offices see column 8 of Table 13, p. 429.

[d] Includes actual number of chain banks operating within the State regardless of whether chain has been assigned to another State. Head-office banks operating within chains are included.

[e] These data included in figures for branch banking given in Table 13 on p. 429.

15. Geographic Distribution of Chain Banking, December 31, 1939[a]

(Deposits in thousands of dollars)

State and Geographic Division	Number of Chains[b]	Banking Offices in Chains					Number of Banks with Branches Included in Chains[e]
		Total		Banks[d]		Branches[e]	
		Number	% of All Banking Offices[c]	Number	Deposits		
United States	96	499	2.7	424	883,005	75	30
New England	1	6	.8	4	7,492	2	2
Maine	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—
Massachusetts	1	6	1.9	4	7,492	2	2
Rhode Island	—	—	—	—	—	—	—
Connecticut	—	—	—	—	—	—	—
Middle Atlantic	6	30	1.0	21	71,508	9	3
New York	4	16	1.2	14	24,276	2	1
New Jersey	2	14	2.9	7	47,232	7	2
Pennsylvania	—	—	—	—	—	—	—
East North Central	8	72	2.0	34	142,341	38	12
Ohio	—	—	—	—	—	—	—
Indiana	—	—	—	—	—	—	—
Illinois	1	3	.4	3	2,925	—	—
Michigan	5	55	9.0	20	121,356	35	10
Wisconsin	2	14	2.0	11	18,060	3	2
West North Central	47	230	6.4	217	337,613	13	7
Minnesota	16	77	11.2	77	112,508	—	—
Iowa	7	35	4.3	26	28,604	9	6
Missouri	6	23	3.6	23	50,337	—	—
North Dakota	2	22	11.7	18	8,784	4	1
South Dakota	2	10	5.1	10	2,491	—	—
Nebraska	5	22	5.2	22	41,511	—	—
Kansas	9	41	6.1	41	93,378	—	—
South Atlantic	7	32	1.6	32	55,593	—	—
Delaware	—	—	—	—	—	—	—
Maryland	1	2	.8	2	7,996	—	—
District of Columbia	—	—	—	—	—	—	—
Virginia	—	—	—	—	—	—	—
West Virginia	1	5	2.7	5	5,735	—	—
North Carolina	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—
Georgia	1	7	2.3	7	4,755	—	—
Florida	4	18	10.4	18	37,107	—	—
East South Central	4	13	1.0	13	8,272	—	—
Kentucky	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—
Alabama	4	13	5.5	13	8,272	—	—
Mississippi	—	—	—	—	—	—	—
West South Central	11	56	3.4	56	63,610	—	—
Arkansas	—	—	—	—	—	—	—
Louisiana	—	—	—	—	—	—	—
Oklahoma	6	37	9.4	37	40,288	—	—
Texas	5	19	2.3	19	23,322	—	—
Mountain	8	36	6.3	30	171,314	6	3
Montana	—	2	1.8	2	6,114	—	—
Idaho	1	11	13.3	6	13,422	5	2
Wyoming	1	2	3.4	2	10,725	—	—
Colorado	2	10	6.9	10	113,487	—	—
New Mexico	—	1	2.1	1	120	—	—
Arizona	—	—	—	—	—	—	—
Utah	3	5	7.0	5	23,215	—	—
Nevada	1	5	23.8	4	4,231	1	1
Pacific	4	24	1.7	17	25,262	7	3
Washington	1	6	2.7	6	2,847	—	—
Oregon	—	—	—	—	—	—	—
California	3	18	1.7	11	22,415	7	3

For footnotes, see bottom of opposite page.

16. Classification of Chain Banking, December 31, 1939*

1. By Major Classes of Banks

Class of Bank	In Absolute Figures		Percentage Distribution	
	Banks	Deposits (In thousands)	Banks	Deposits
National	170	$586,619	40.1	66.4
State Member	28	97,238	6.6	11.0
Insured Nonmember	198	192,864	46.7	21.9
Noninsured State	28	6,284	6.6	0.7
All Classes	424	$883,005	100.0	100.0

2. By Amount of Deposits of Individual Banks

Size Group—Total Deposits	In Absolute Figures		Percentage Distribution	
	Banks	Deposits (In thousands)	Banks	Deposits
$150,000 and under	41	$4,074	9.7	0.5
150,001- 250,000	49	9,646	11.5	1.1
250,001- 500,000	97	34,742	22.9	3.9
500,001- 1,000,000	93	65,244	21.9	7.4
1,000,001- 2,000,000	73	101,363	17.2	11.5
2,000,001- 5,000,000	36	106,082	8.5	12.0
5,000,001-10,000,000	17	117,934	4.0	13.3
10,000,001-50,000,000	16	316,047	3.8	35.8
50,000,001 and over	2	127,873	0.5	14.5
All Classes	424	$883,005	100.0	100.0

3. By Population of Place in Which Located

Population Group	In Absolute Figures		Percentage Distribution	
	Banks	Deposits (In thousands)	Banks	Deposits
Under 500	64	$14,609	15.1	1.7
500- 999	70	23,753	16.5	2.7
1,000- 2,499	92	53,959	21.7	6.1
2,500- 4,999	59	58,530	13.9	6.6
5,000- 9,999	50	72,499	11.8	8.2
10,000-24,999	32	99,820	7.6	11.3
25,000-49,999	12	63,823	2.8	7.2
50,000-99,999	15	74,879	3.5	8.5
100,000 and over	30	421,133	7.1	47.7
All Classes	424	$883,005	100.0	100.0

* Data compiled by the Board of Governors. Mutual savings and private banks and their branches are excluded.

17. Distribution of Group Banks and Related Items by Their Relationship to a Holding Company, December 31, 1939[a]

(Dollar items in thousands)

Relationship to Holding Company	Banks	Branches	Deposits	Loans and Investments
All group banks	**427**	**869**	**$7,173,385**	**$5,397,553**
Controlled through voting of common stock[b]:	**364**	**245**	**3,175,233**	**2,328,545**
Key banks	12	78	998,401	680,766
Other banks	352	167	2,176,832	1,647,779
Associated with but not controlled by holding company[c]:	**63**	**624**	**3,998,152**	**3,069,008**
Key banks[d]	26	610	3,869,682	2,966,029
Other banks	37	14	128,470	102,979

[a] Data compiled by the Board of Governors. Mutual savings and private banks and their branches are excluded.

[b] Owing to the ownership of preferred stock by the Reconstruction Finance Corporation, the holding company does not have actual voting control of some of these banks.

[c] Holding company owns less than a majority of the common stock.

[d] Includes banks that are holding companies.

18. Geographic Distribution of Group Banking, December 31, 1939[a]

(Dollar items in thousands)

State and Geographic Division	Group Banks	Branches of Group Banks[b]	Total Banking Offices in Groups		Deposits	Loans and Investments
			Number	Percentage of All Banking Offices[c]		
United States	**427**	**869**	**1,296**	**7.2**	**$7,173,385**	**$5,397,553**
New England	**31**	**82**	**113**	**14.1**	**1,138,840**	**750,109**
Maine	3	3	6	4.8	10,093	8,660
New Hampshire	4	—	4	6.1	10,060	9,500
Vermont	—	—	—	—	—	—
Massachusetts	21	65	86	27.4	989,423	624,672
Rhode Island	3	14	17	26.6	129,264	107,277
Connecticut	—	—	—	—	—	—
Middle Atlantic	**70**	**91**	**161**	**5.3**	**1,700,546**	**1,382,950**
New York	28	78	106	7.7	537,440	423,799
New Jersey	—	—	—	—	—	—
Pennsylvania	42	13	55	4.7	1,163,106	959,151
East North Central	**33**	**30**	**63**	**1.8**	**440,114**	**301,380**
Ohio	17	13	30	3.5	119,071	93,292
Indiana	—	—	—	—	—	—
Illinois	—	—	—	—	—	—
Michigan	1	3	4	0.7	5,891	4,243
Wisconsin	15	14	29	4.1	315,152	203,845
West North Central	**149**	**26**	**175**	**4.9**	**991,618**	**673,829**
Minnesota	90	6	96	14.0	601,774	412,707
Iowa	5	—	5	0.6	58,168	37,171
Missouri	6	—	6	0.9	203,193	127,781
North Dakota	30	—	30	16.0	35,362	28,603
South Dakota	11	20	31	15.7	39,566	30,534
Nebraska	7	—	7	1.6	53,555	37,033
Kansas	—	—	—	—	—	—

For footnotes, see continuation of table on p. 434.

18. Geographic Distribution of Group Banking, December 31, 1939[a]—*Continued*

(Dollar items in thousands)

State and Geographic Division	Group Banks	Branches of Group Banks[b]	Total Banking Offices in Groups		Deposits	Loans and Investments
			Number	Percentage of All Banking Offices[c]		
South Atlantic	**50**	**12**	**62**	**3.2**	**420,714**	**266,490**
Delaware	—	—	—	—	—	—
Maryland	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—
Virginia	—	—	—	—	—	—
West Virginia	4	—	4	2.2	6,137	4,496
North Carolina	—	—	—	—	—	—
South Carolina	1	3	4	2.3	20,686	11,735
Georgia	18	9	27	8.7	176,206	112,845
Florida	27	—	27	15.6	217,685	137,414
East South Central	**20**	**22**	**42**	**3.3**	**203,782**	**141,050**
Kentucky	6	8	14	3.2	56,291	43,953
Tennessee	14	14	28	8.0	147,491	97,097
Alabama	—	—	—	—	—	—
Mississippi	—	—	—	—	—	—
West South Central	**7**	**—**	**7**	**0.4**	**152,008**	**102,525**
Arkansas	—	—	—	—	—	—
Louisiana	—	—	—	—	—	—
Oklahoma	—	—	—	—	—	—
Texas	7	—	7	0.8	152,008	102,525
Mountain	**36**	**33**	**69**	**12.0**	**240,100**	**165,237**
Montana	23	—	23	20.7	80,266	52,265
Idaho	1	13	14	16.9	28,331	23,513
Wyoming	1	—	1	1.7	1,796	1,224
Colorado	—	—	—	—	—	—
New Mexico	—	—	—	—	—	—
Arizona	2	3	5	13.2	21,277	15,401
Utah	6	8	14	19.7	75,331	50,538
Nevada	3	9	12	57.1	33,099	22,296
Pacific	**31**	**573**	**604**	**41.9**	**1,885,663**	**1,613,983**
Washington	13	10	23	10.4	43,521	32,097
Oregon	5	41	46	32.9	115,716	87,491
California	13	522	535	49.6	1,726,426	1,494,395

[a] Data compiled by the Board of Governors. Mutual savings and private banks and their branches excluded. In all cases a dash indicates zero.

[b] These data included in figures for branch banking given in Table 13 on p. 429.

[c] For data on all banking offices see column 8 in Table 13, p. 429.

19. Classification of Group Banking, December 31, 1939[a]

1. By Number of Banks in Each Group

Banks in Group	In Absolute Figures			Percentage Distribution		
	Groups	Banks	Branches	Groups	Banks	Branches
5 or under	20	69	60	48.8	16.1	6.9
6–10	11	75	68	26.8	17.6	7.9
11–18	7	102	645[b]	17.1	23.9	74.2
21	1	21	67	2.4+	4.9	7.7
75	1	75	8	2.4+	17.6	0.9
85	1	85	21	2.4+	19.9	2.4
Total	41	427	869	100.0	100.0	100.0

For footnotes, see p. 435.

19. Classification of Group Banking, December 31, 1939[a]—*Continued*

2. By Number of Places in Which Group Operates

Places of Operation	Groups Operating in Only One State				Groups Operating in from Two to Seven States			
	Groups	Banks	Branches	Deposits (In thousands)	Groups	Banks	Branches	Deposits (In thousands)
1	6	20	1	$1,070,219	–	—	—	—
2	5	16	8	416,080	–	—	—	—
3	1	3	—	3,909	–	—	—	—
4-10	15	82	81	1,031,430	2	16	—	$13,556
11-20	4	52	36	490,080	2	24	16	224,474
21	1	13	47	775,973	–	—	—	—
24	—	—	—	—	1	5	21	71,242
36	1	21	67	485,143	–	—	—	—
71	—	—	—	—	1	75	8	429,358
93	—	—	—	—	1	85	21	442,030
354	—	—	—	—	1	15	563	1,719,891
Total	33	207	240	$4,272,834	8	220	629	$2,900,551

3. By Size of Deposits of Individual Banks

Size Group—Total Deposits	In Absolute Figures		Percentage Distribution	
	Banks	Deposits (In thousands)	Banks	Deposits
No deposits	3	—	0.7	—
$250,000 and under	10	$1,832	2.3	0.0
250,001- 500,000	46	17,329	10.8	0.2
500,001- 1,000,000	78	56,398	18.3	0.8
1,000,001- 2,000,000	86	119,779	20.1	1.7
2,000,001- 5,000,000	90	273,449	21.1	3.8
5,000,001- 10,000,000	41	289,950	9.6	4.1
10,000,001- 50,000,000	50	1,149,426	11.7	16.0
50,000,001-100,000,000	4	277,639	0.9	3.9
100,000,001-200,000,000	14	1,965,112	3.3	27.4
200,000,001-500,000,000	3	876,761	0.7	12.2
500,000,001 and over	2	2,145,710	0.5	29.9
Total	427	$7,173,385	100.0	100.0

4. By Population of Place in Which Located

Population Group	In Absolute Figures		Percentage Distribution	
	Banks	Deposits[c] (In thousands)	Banks	Deposits[c]
Under 500	9	$3,377	2.1	0.05
500- 999	29	12,691	6.8	0.18
1,000- 2,499	63	41,933	14.8	0.58
2,500- 4,999	51	53,392	11.9	0.74
5,000- 9,999	60	122,830	14.1	1.71
10,000-24,999	71	340,098	16.6	4.74
25,000-49,999	36	263,420	8.4	3.67
50,000-99,999	18	317,477	4.2	4.43
100,000 and over	90	6,018,167	21.1	83.90
Total	427	$7,173,385	100.0	100.00

[a] Data compiled by the Board of Governors. Mutual savings and private banks and their branches are excluded. In all cases a dash indicates zero.

[b] Includes 494 branches of one bank.

[c] Total deposits of group banks that operate branches are shown opposite population groups of cities in which the head offices are located.

20. Ratio of Time to Total Deposits of Commercial Banks, 1900–1940[a]

(Deposits in millions of dollars)

Year (June 30)	Total Deposits	Time Deposits[b]	Ratio of Time to Total Deposits (Per Cent)	Year (June 30)	Total Deposits	Time Deposits[b]	Ratio of Time to Total Deposits (Per Cent)
1900	6,375	833	13.1	1920	36,261	10,637	29.3
1901	7,610	992	13.0	1921	32,877	11,014	33.5
1902	8,211	1,121	13.7	1922	35,164	11,636	33.1
1903	8,631	1,220	14.1	1923	37,765	13,270	35.1
1904	9,229	1,368	14.8	1924	40,804	14,487	35.5
1905	10,568	1,648	15.6	1925	44,634	16,045	35.9
1906	11,273	1,786	15.3	1926	46,267	17,015	36.8
1907	12,271	2,187	17.8	1927	48,444	18,894	39.0
1908	12,020	2,314	19.3	1928	49,491	20,168	40.8
1909	13,482	3,001	22.3	1929	48,664	20,017	41.1
1910	14,179	3,407	24.0	1930	50,416	20,169	40.0
1911	15,076	3,693	24.5	1931	46,574	19,003	40.8
1912	16,056	4,101	25.5	1932	35,122	14,626	41.7
1913	16,318	4,423	27.0	1933	31,600	11,597	36.7
1914	17,389	4,839	27.8	1934	36,621	12,655	34.6
1915	18,015	5,188	28.8	1935	41,419	13,315	32.1
1916	22,096	6,061	27.4	1936	47,997	13,992	29.2
1917	25,909	7,060	27.2	1937	49,280	14,811	30.1
1918	28,006	7,257	25.9	1938	48,835	15,216	31.2
1919	32,787	8,628	26.3	1939	53,793	15,450	28.7
				1940	60,138	15,930	26.5

[a] Compiled from data contained in the annual reports of the Comptroller of the Currency. Excludes mutual savings banks but includes stock savings and private banks.

[b] Partly estimated.

21. Assets of Member Banks, 1928–1940[a]

(In millions of dollars)

Call Date	Cash[b]	Secondary Reserves[c]	Other Loans	Other Investments
1928—Oct. 3	7,548	4,015	21,788	9,296
Dec. 31	9,762	4,632	21,998	9,245
1929—Mar. 27	8,067	4,004	22,451	9,117
June 29	7,017	3,779	23,187	8,902
Oct. 4	7,982	3,439	23,889	8,720
Dec. 31	8,996	3,151	23,908	9,015
1930—Mar. 27	7,153	4,048	22,022	9,139
June 30	8,852	3,964	22,101	9,721
Sept. 24	7,246	4,130	21,476	9,982
Dec. 31	8,449	3,221	21,638	10,136
1931—Mar. 25	7,160	3,830	20,386	10,657
June 30	7,921	3,754	19,536	10,802
Sept. 29	6,370	3,095	19,182	10,913
Dec. 31	6,255	2,227	18,244	10,196
1932—June 30	5,544	2,501	15,651	9,950
Sept. 30	5,928	3,436	14,797	9,903
Dec. 31	6,472	3,616	14,124	9,820
1933—June 30	6,133	4,653	11,475	8,767
Oct. 25	6,007	4,376	11,563	9,216
Dec. 30	6,250	4,508	11,389	9,543
1934—Mar. 5	7,097	6,116	11,068	9,548
June 30	8,015	6,309	10,747	10,354
Oct. 17	8,757	6,614	10,702	10,536
Dec. 31	9,629	7,140	10,432	10,875
1935—Mar. 4	9,793	7,053	10,346	11,129
June 29	9,939	7,170	10,353	11,444
Nov. 1	11,605	8,023	10,400	11,048
Dec. 31	12,114	8,499	10,477	11,215

For footnotes, see continuation of table on p. 437.

21. Assets of Member Banks, 1928–1940[a]—*Continued*

(In millions of dollars)

Call Date	Cash[b]	Secondary Reserves[c]	Other Loans	Other Investments
1936—Mar. 4	11,949	8,698	10,386	11,418
June 30	12,261	8,266	10,907	13,290
Dec. 31	13,721	7,560	11,582	14,061
1937—Mar. 31	12,562	7,001	11,834	13,875
June 30	12,827	7,254	12,371	13,272
Dec. 31	13,174	6,485	12,578	12,855
1938—Mar. 7	12,721	6,559	12,265	12,881
June 30	14,588	5,210	11,922	13,813
Sept. 28	14,254	5,227	11,922	14,670
Dec. 31	15,318	5,260	11,792	15,188
1939—Mar. 29	15,652	4,341	11,782	16,141
June 30	17,448	4,487	11,990	16,302
Dec. 30	19,622	4,191	12,717	17,193
1940—June 29	21,707	4,359	13,072	17,143

[a] Compiled from *Member Bank Call Report*, Nos. 41-84, inclusive.

[b] Includes vault cash, deposits in Federal Reserve Banks, demand balances in other banks, and cash items in process of collection.

[c] Includes open-market loans, Treasury notes and bills, time balances in banks in the United States, and all balances in banks in foreign countries.

22. Earnings and Profits of Member Banks, 1919–1939[a]

Calendar Year	Gross Earnings[b]	Net Earnings[b]	Net Profits	Total Assets[c]	Gross Earnings[b]	Net Earnings[b]	Net Profits
	In Millions of Dollars				As Percentages of Total Assets		
1919	1,436	455	351	29,770	4.83	1.53	1.18
1920	1,804	577	396	32,374	5.57	1.78	1.22
1921	1,744	534	293	31,278	5.58	1.71	.94
1922	1,652	506	349	31,414	5.26	1.61	1.11
1923	1,720	487	337	34,099	5.04	1.43	.99
1924	1,763	498	356	36,385	4.91	1.39	.99
1925	1,919	551	420	39,304	4.88	1.40	1.07
1926	2,028	586	432	41,094	4.94	1.43	1.05
1927	2,014	498	447	42,800	4.71	1.16	1.05
1928	2,194	580	504	45,596	4.81	1.27	1.11
1929	2,399	715	557	47,533	5.05	1.51	1.17
1930	2,158	554	307	47,164	4.58	1.17	.65
1931	1,841	506	12	43,991	4.19	1.15	.03
1932	1,554	410	−255	37,042	4.19	1.11	− .69
1933	1,237	378	−356	33,367	3.71	1.13	−1.07
1934	1,244	394	−225	37,176	3.35	1.06	− .61
1935	1,207	374	212	41,613	2.90	.90	.51
1936	1,271	399	465	45,904	2.77	.87	1.01
1937	1,321	419	337	47,510	2.78	.88	.71
1938	1,274	384	265	47,434	2.69	.81	.56
1939	1,296	401	347	52,129	2.49	.77	.68

[a] Compiled from the *Federal Reserve Bulletin* and annual reports of the Comptroller of the Currency.

[b] Through 1926 include profits on securities sold, which were thereafter treated as offsets to losses and charge-offs. The resulting inconsistency is not believed to be very great.

[c] Averages of assets reported by all member banks for each call date in the calendar year and the final call date in the preceding year, except that for 1933 only averages for the last three call dates in year were included.

23. Checks Handled and Currency Received and Counted by the Federal Reserve Banks, 1917–1939[a]

(In thousands)

Calendar Year	Checks Handled		Pieces of Currency Received and Counted	
	Number[b]	Amount	Paper Money	Coin
1917	84,697	$51,593,771	[c]	[c]
1918	172,843	121,511,151	[c]	[c]
1919	341,594	156,901,015	[c]	[c]
1920	504,198	179,505,223	1,085,459	[c]
1921	574,921	130,482,253	1,353,020	1,647,677
1922	638,634	160,472,450	1,424,849	1,945,453
1923	697,502	207,719,529	1,722,877	2,076,075
1924	742,878	219,832,179	1,838,279	2,186,737
1925	778,686	258,611,276	1,947,419	2,329,014
1926	822,907	272,945,160	2,099,605	2,590,057
1927	862,275	278,399,627	2,194,608	2,691,184
1928	887,997	301,703,814	2,270,555	2,929,091
1929	924,449	367,215,123	2,427,330	3,239,709
1930	904,975	324,883,021	2,441,989	3,325,555
1931	864,615	248,172,956	2,269,292	2,900,462
1932	734,538	176,591,791	2,025,552	2,654,787
1933	688,933	157,833,692	2,013,459	2,497,928
1934	818,847	179,544,488	2,067,835	2,565,164
1935	885,190	202,989,742	2,148,485	2,590,859
1936	1,009,264	234,417,787	2,232,980	2,665,190
1937	1,044,553	255,453,609	2,257,892	2,730,387
1938	1,098,115	231,820,217	2,089,987	2,676,248
1939	1,157,140	255,937,980	2,134,908	2,644,418

[a] Data compiled by the Board of Governors and published in its annual reports.
[b] Two or more checks handled as a single item counted as one "piece."
[c] Not available.

24. Expenses of Federal Reserve Banks as Fiscal Agents and Depositaries of the United States, 1917–1939[a]

Calendar Year	Total[b]	Reimbursable	Calendar Year	Total[b]	Reimbursable
1917	$3,094,750	$3,094,750	1930	$566,293	$161,086
1918	16,256,689	16,256,689	1931	606,297	219,399
1919	16,626,016	16,626,016	1932	1,640,639	1,245,772
			1933	2,689,629	2,257,456
1920	6,215,356	6,215,356	1934	4,098,806	3,649,004
1921	3,855,693	2,609,754			
1922	2,741,780	1,183,815	1935	6,308,164	4,297,083
1923	3,109,653	1,912,483	1936	6,903,091	5,940,021
1924	1,320,589	444,067	1937	4,736,896	3,838,789
			1938	5,043,754	4,020,726
1925	870,915	167,330	1939	5,973,877	4,874,174
1926	678,465	124,422			
1927	897,930	355,800			
1928	922,210	371,335			
1929	615,402	150,675			

[a] Compiled from information on file at the Board of Governors.
[b] Expenses of handling Government checks and coupons and of maintaining space for fiscal agency activities not included in the total prior to 1935.

25. Bills and Securities Held by the Federal Reserve Banks, 1914–1939[a]

(Monthly averages of daily figures, in thousands of dollars)

Year and Month	Total[b]	Bills Discounted	Bills Bought	United States Government Securities
1914—November	5,944	5,871	—	—
December	9,627	9,525	—	39
1915—January	19,942	11,743	—	1,020
February	32,336	16,634	301	4,310
March	48,750	20,341	7,550	6,413
April	58,394	21,632	13,222	6,801
May	62,772	23,132	10,994	6,845
June	54,395	24,695	9,840	7,246
July	58,873	27,136	9,666	7,855
August	68,777	27,860	12,328	8,628
September	75,879	29,674	12,664	9,081
October	78,567	28,355	13,958	10,106
November	80,178	29,237	14,030	11,939
December	81,141	31,511	19,883	14,683
1916—January	91,795	28,640	26,125	18,534
February	101,434	21,981	28,307	26,489
March	125,805	21,526	35,247	36,632
April	148,658	21,770	43,775	47,481
May	167,252	20,066	50,489	54,936
June	163,920	20,612	62,484	56,750
July	187,016	25,092	78,429	56,991
August	191,941	27,905	81,052	55,214
September	186,742	27,087	81,592	55,229
October	185,811	22,060	80,698	52,804
November	186,423	19,715	94,925	50,461
December	220,454	32,844	121,247	53,761
1917—January	196,703	20,861	110,266	55,140
February	196,482	18,237	114,886	47,779
March	183,526	18,528	98,418	50,261
April	228,900	25,169	77,271	111,292
May	274,120	42,980	97,346	119,116
June	433,445	155,199	162,136	111,516
July	422,998	151,191	196,966	72,625
August	367,839	134,253	158,774	73,564
September	438,554	181,476	167,830	89,034
October	612,103	320,178	179,173	112,489
November	879,793	562,522	191,574	124,373
December	1,028,824	682,625	243,032	101,850
1918—January	1,027,810	612,235	265,613	148,678
February	1,002,906	528,779	288,468	184,834
March	1,122,797	536,591	315,087	270,590
April	1,238,085	751,398	312,749	173,402
May	1,260,904	896,711	278,137	85,520
June	1,275,567	938,909	238,939	97,465
July	1,435,710	1,162,031	208,321	65,297
August	1,602,534	1,332,661	216,782	53,027
September	1,919,653	1,603,675	249,207	66,703
October	2,160,793	1,683,268	354,158	123,320
November	2,263,569	1,760,406	373,565	129,569
December	2,325,307	1,765,209	345,698	214,379
1919—January	2,209,020	1,731,412	278,042	199,557
February	2,225,220	1,765,051	273,875	186,290
March	2,318,167	1,862,833	260,795	194,535
April	2,340,658	1,919,808	207,467	213,382
May	2,391,263	1,976,150	187,056	228,057
June	2,322,011	1,839,610	246,555	235,846
July	2,471,285	1,864,386	357,973	248,926
August	2,440,330	1,798,207	371,892	270,231
September	2,468,296	1,776,228	350,648	341,420
October	2,707,123	2,067,889	343,369	295,865
November	2,902,459	2,140,368	454,820	307,271
December	2,990,525	2,114,527	548,767	327,231

For footnotes, see end of table, p. 444.

25. Bills and Securities Held by the Federal Reserve Banks 1914–1939[a]—*Continued*

(Monthly averages of daily figures, in thousands of dollars)

Year and Month	Total[b]	Bills Discounted	Bills Bought	United States Government Securities
1920—January	3,031,729	2,136,317	569,567	325,845
February	3,147,513	2,297,199	540,971	309,343
March	3,200,219	2,376,800	479,709	343,710
April	3,175,888	2,430,952	413,315	331,621
May	3,248,474	2,535,955	410,548	301,971
June	3,202,163	2,455,672	399,710	346,781
July	3,194,416	2,513,420	362,185	318,811
August	3,224,046	2,596,291	324,250	303,505
September	3,316,086	2,667,312	310,268	338,506
October	3,386,934	2,779,537	302,592	304,805
November	3,357,709	2,761,937	275,781	319,991
December	3,299,186	2,718,122	241,577	339,487
1921—January	3,020,804	2,523,195	199,778	297,831
February	2,856,434	2,400,425	168,741	287,268
March	2,729,718	2,296,742	137,274	295,702
April	2,515,487	2,129,247	109,559	276,681
May	2,345,973	1,958,591	84,270	303,112
June	2,166,918	1,810,540	54,448	301,930
July	2,006,448	1,719,058	26,303	261,087
August	1,834,393	1,547,817	38,064	248,512
September	1,736,358	1,442,390	39,805	254,163
October	1,634,192	1,370,531	56,229	207,427
November	1,515,123	1,227,699	79,002	208,161
December	1,511,915	1,180,169	105,198	226,290
1922—January	1,298,100	961,966	98,195	237,637
February	1,213,444	768,836	87,507	356,906
March	1,189,212	638,208	92,318	458,584
April	1,185,783	572,466	93,003	520,224
May	1,186 051	479.100	103,452	603,499
June	1,163,717	437,436	135,591	590,690
July	1,125,037	425,399	152,550	547,083
August	1,052,272	395,588	159,490	497,185
September	1,114,796	417,251	211,538	485,989
October	1,185,840	486,155	251,534	448,129
November	1,208,589	623,372	259,871	325,319
December	1,299,693	660,427	259,296	379,939
1923—January	1,185,994	547,058	217,939	420,977
February	1,153,721	608,165	189,819	355,737
March	1,177,417	627,799	233,753	315,848
April	1,158,872	657,730	272,439	228,664
May	1,169,918	705,312	271,333	193,224
June	1,119,010	741,246	224,313	153,395
July	1,116,638	834,084	186,002	96,533
August	1,074,252	808,870	175,351	90,016
September	1,120,964	845,227	173,909	101,690
October	1,149,747	873,142	184,838	91,450
November	1,147,191	798,529	264,951	83,456
December	1,200,916	771,034	323,901	105,893
1924—January	991,382	573,865	299,914	117,576
February	921,228	513,920	272,678	134,611
March	948,007	475,712	228,101	244,121
April	932,736	488,558	170,525	273,601
May	836,507	432,613	79,995	323,557
June	838,062	370,159	50,376	416,251
July	827,001	315,343	43,878	466,530
August	838,956	268,475	29,532	539,409
September	931,595	261,655	91,617	575,360
October	1,006,986	240,200	179,735	585,118
November	1,087,235	228,236	268,346	587,666
December	1,220,693	307,085	357,504	554,048

For footnotes, see end of table, p. 444.

25. Bills and Securities Held by the Federal Reserve Banks 1914–1939[a]—*Continued*

(Monthly averages of daily figures, in thousands of dollars)

Year and Month	Total[b]	Bills Discounted	Bills Bought	United States Government Securities
1925—January	1,070,746	275,227	329,258	463,722
February	1,050,935	350,753	313,419	383,790
March	1,076,506	400,111	298,177	375,566
April	1,057,215	413,266	287,322	354,984
May	1,050,034	407,852	279,054	361,261
June	1,058,393	447,677	263,497	344,969
July	1,061,438	490,605	231,122	337,667
August	1,092,215	555,665	205,401	329,091
September	1,165,601	602,034	225,728	335,425
October	1,254,747	626,148	298,211	327,685
November	1,289,509	602,418	351,751	331,962
December	1,427,225	696,133	368,659	359,242
1926—January	1,221,575	526,769	323,874	367,789
February	1,175,626	532,809	304,816	334,816
March	1,171,970	564,742	267,833	335,742
April	1,155,739	545,690	234,409	370,754
May	1,153,771	519,248	232,219	398,201
June	1,134,860	480,278	243,233	407,896
July	1,165,286	552,628	229,923	379,618
August	1,157,013	555,331	245,117	353,192
September	1,223,551	639,508	264,813	315,530
October	1,267,776	663,296	295,249	306,189
November	1,267,825	614,501	348,365	302,434
December	1,377,175	668,453	384,603	321,540
1927—January	1,138,106	480,622	343,448	310,486
February	1,005,923	392,996	304,071	306,606
March	1,024,251	424,543	252,722	344,922
April	1,038,857	447,286	248,429	341,081
May	999,504	472,984	233,224	291,495
June	1,033,123	428,563	205,273	397,754
July	1,026,152	453,997	189,774	381,081
August	1,021,830	409,439	173,122	438,511
September	1,139,342	422,192	215,926	500,637
October	1,213,191	424,413	281,903	506,177
November	1,331,008	415,216	335,908	579,238
December	1,513,119	528,624	377,712	605,841
1928—January	1,350,322	465,275	372,538	511,852
February	1,236,649	470,680	359,883	405,551
March	1,271,525	513,233	342,790	414,681
April	1,371,048	660,927	358,026	351,105
May	1,441,788	835,502	348,600	256,686
June	1,494,972	1,018,735	243,540	231,907
July	1,488,065	1,089,579	185,018	212,978
August	1,449,136	1,060,811	177,951	209,610
September	1,533,941	1,064,302	226,033	240,429
October	1,584,146	975,204	367,595	236,914
November	1,610,442	897,309	470,638	238,335
December	1,766,080	1,013,003	482,704	262,776
1929—January	1,569,902	859,223	472,543	228,528
February	1,467,584	889,207	384,662	184,241
March	1,442,079	971,493	265,430	196,746
April	1,338,364	1,010,294	155,686	165,311
May	1,265,468	960,253	144,899	152,870
June	1,268,295	978,009	99,489	179,370
July	1,328,469	1,095,623	74,815	147,473
August	1,336,065	1,043,467	124,441	154,513
September	1,378,568	969,000	229,395	164,579
October	1,396,471	884,501	337,121	154,462
November	1,585,581	952,640	296,212	315,289
December	1,582,498	803,352	319,997	446,066

For footnotes, see end of table, p. 444.

25. Bills and Securities Held by the Federal Reserve Banks 1914–1939[a]—*Continued*

(Monthly averages of daily figures, in thousands of dollars)

Year and Month	Total[b]	Bills Discounted	Bills Bought	United States Government Securities
1930—January	1,312,650	500,780	313,839	484,818
February	1,155,734	377,644	285,152	480,121
March	1,068,975	273,517	245,562	539,513
April	1,036,403	231,172	266,141	529,989
May	965,664	246,890	181,725	528,636
June	969,172	251,237	141,173	571,175
July	970,167	226,041	153,896	582,889
August	973,882	213,987	152,898	598,649
September	989,642	188,700	196,630	597,030
October	989,840	196,388	185,470	601,582
November	1,010,357	220,769	184,212	599,065
December	1,242,650	337,557	256,596	643,880
1931—January	1,109,208	252,886	205,841	647,348
February	921,206	215,757	102,076	603,373
March	903,664	176,431	123,293	603,940
April	927,878	154,658	172,897	600,280
May	906,092	162,765	143,759	598,559
June	925,660	189,939	120,740	609,537
July	930,258	169,036	78,896	673,593
August	1,076,009	223,252	134,549	712,254
September	1,288,255	281,936	259,257	736,190
October	2,061,855	614,242	691,723	733,054
November	2,013,608	695,081	560,341	726,612
December	1,921,952	774,471	340,157	776,954
1932—January	1,841,655	827,998	220,824	759,252
February	1,768,437	847,619	150,817	742,816
March	1,635,314	714,142	105,358	809,087
April	1,676,091	605,054	52,174	1,014,032
May	1,945,188	486,470	41,013	1,412,611
June	2,247,624	494,992	49,990	1,697,121
July	2,407,016	522,888	59,771	1,818,465
August	2,344,078	450,771	37,066	1,850,216
September	2,273,617	386,918	33,639	1,847,777
October	2,217,745	327,537	33,518	1,851,306
November	2,203,625	313,048	34,394	1,850,772
December	2,174,871	282,188	33,760	1,853,509
1933—January	2,098,480	255,274	32,108	1,806,410
February	2,216,298	306,547	101,516	1,804,034
March	3,258,096	998,768	378,576	1,875,208
April	2,501,938	428,506	230,443	1,837,423
May	2,276,636	338,932	85,901	1,846,383
June	2,199,418	249,872	12,475	1,933,428
July	2,203,363	169,624	15,982	2,015,642
August	2,232,136	158,923	7,522	2,063,839
September	2,348,162	137,647	7,076	2,201,627
October	2,483,026	119,495	6,739	2,355,148
November	2,567,616	114,001	15,088	2,436,957
December	2,651,533	116,868	100,820	2,432,290
1934—January	2,647,830	100,619	113,348	2,432,469
February	2,590,422	70,063	86,699	2,432,433
March	2,532,804	55,350	39,632	2,437,216
April	2,498,794	43,141	16,441	2,438,628
May	2,473,404	35,879	6,153	2,430,737
June	2,457,700	28,140	5,194	2,423,839
July	2,460,797	23,221	5,261	2,431,832
August	2,458,140	20,588	5,191	2,431,681
September	2,460,181	21,876	5,431	2,431,100
October	2,452,532	12,165	5,954	2,430,065
November	2,461,586	17,960	5,807	2,429,834
December	2,457,616	9,958	5,661	2,430,214

For footnotes, see end of table, p. 444.

25. Bills and Securities Held by the Federal Reserve Banks 1914–1939[a]—*Continued*

(Monthly averages of daily figures, in thousands of dollars)

Year and Month	Total[b]	Bills Discounted	Bills Bought	United States Government Securities
1935—January	2,459,154	7,845	5,570	2,430,410
February	2,460,574	6,240	5,506	2,430,419
March	2,463,386	6,810	5,401	2,431,045
April	2,466,662	6,371	5,135	2,430,804
May	2,472,483	6,761	4,700	2,434,371
June	2,470,105	7,518	4,705	2,430,541
July	2,470,504	7,256	4,682	2,430,386
August	2,471,945	7,403	4,689	2,430,621
September	2,474,962	10,010	4,686	2,430,413
October	2,475,675	8,481	4,680	2,430,233
November	2,474,246	6,607	4,676	2,430,159
December	2,474,193	6,310	4,671	2,430,365
1936—January	2,473,189	5,924	4,660	2,430,285
February	2,474,832	7,842	4,671	2,430,264
March	2,471,746	5,954	4,674	2,430,349
April	2,471,016	5,618	4,683	2,430,269
May	2,470,044	4,880	4,420	2,430,282
June	2,469,286	5,750	3,078	2,430,258
July	2,466,379	3,342	3,087	2,430,227
August	2,468,488	6,271	3,093	2,430,227
September	2,469,432	7,521	3,097	2,430,227
October	2,467,251	7,176	3,094	2,430,227
November	2,465,880	6,393	3,088	2,430,227
December	2,468,938	7,077	3,090	2,433,527
1937—January	2,460,645	2,883	3,088	2,430,490
February	2,460,380	3,319	3,080	2,430,513
March	2,464,510	6,415	3,145	2,432,109
April	2,516,286	9,912	3,533	2,479,973
May	2,568,817	15,831	4,617	2,525,731
June	2,568,115	14,548	5,172	2,526,271
July	2,564,685	13,319	3,481	2,526,190
August	2,568,086	17,486	3,075	2,526,512
September	2,573,895	24,002	3,052	2,526,190
October	2,571,173	22,033	2,826	2,526,648
November	2,585,969	18,751	2,831	2,545,306
December	2,602,390	15,877	2,753	2,565,352
1938—January	2,593,735	11,170	543	2,564,127
February	2,592,683	10,539	548	2,564,015
March	2,593,214	10,257	544	2,565,104
April	2,597,716	10,780	549	2,569,409
May	2,589,701	8,354	541	2,564,015
June	2,586,162	9,265	535	2,559,727
July	2,588,778	7,949	539	2,564,015
August	2,587,102	6,703	539	2,564,015
September	2,596,283	7,739	539	2,572,226
October	2,587,999	8,060	541	2,563,950
November	2,586,960	7,166	545	2,564,016
December	2,587,187	7,059	549	2,564,016

For footnotes, see end of table, p. 444.

25. Bills and Securities Held by the Federal Reserve Banks 1914–1939[a]—*Continued*

(Monthly averages of daily figures, in thousands of dollars)

Year and Month	Total[b]	Bills Discounted	Bills Bought	United States Government Securities
1939—January	2,588,237	4,569	553	2,567,748
February	2,587,420	5,383	553	2,566,802
March	2,584,691	3,455	555	2,566,532
April	2,583,830	2,999	560	2,566,603
May	2,581,699	3,922	560	2,564,446
June	2,580,275	4,310	558	2,562,980
July	2,545,279	4,836	554	2,527,385
August	2,453,759	4,826	536	2,436,699
September	2,750,111	5,948	545	2,731,951
October	2,781,059	6,123	294	2,762,843
November	2,669,732	6,916	—	2,651,230
December	2,529,121	7,971	—	2,509,976
1940—January	2,496,738	6,891	—	2,478,981
February	2,494,369	6,622	—	2,477,271
March	2,489,958	3,143	—	2,476,368
April	2,479,239	2,463	—	2,466,873
May	2,484,167	2,780	—	2,472,125
June	2,486,015	2,495	—	2,474,488

[a] Data compiled by Board of Governors; through 1934 published in its annual reports; figures (in millions of dollars) for bills discounted, bills bought, and United States Government securities published in annual reports 1935–1937 and thereafter in current issues of the *Federal Reserve Bulletin*. In all cases a dash indicates zero.

[b] Includes municipal warrants, Federal Intermediate Credit Bank debentures, industrial advances, etc., whenever held.

26. Statement of Condition of the Twelve Federal Reserve Banks Combined, December 31, 1939[a]

(In thousands of dollars)

ASSETS			LIABILITIES		
Gold certificates on hand and due from U. S. Treasury	15,199,120		F. R. notes in actual circulation[b]		4,958,546
Redemption fund—F. R. notes	9,903		Deposits:		
Other cash	315,194		Member bank—reserve account	11,653,232	
Total reserves		15,524,217	U. S. Treasurer—General account	634,270	
Bills discounted:			Foreign bank	397,443	
Secured by U. S. Gov't obligations, direct and guaranteed	574		Other deposits	255,836	
Other bills discounted	6,191		*Total deposits*		12,940,781
Total bills discounted	6,765		Deferred availability items		776,665
Industrial advances	11,044		Other liabilities including accrued dividends		2,558
U. S. Government securities, direct and guaranteed:			TOTAL LIABILITIES		18,678,550
Bonds	1,351,045		CAPITAL ACCOUNTS		
Notes	1,133,225		Capital paid in	135,599	
Total U. S. Gov't securities, direct and guaranteed	2,484,270		Surplus (Section 7)	151,720	
Total bills and securities		2,502,079	Surplus (Section 13b)	26,839	
Due from foreign banks	47		Other capital accounts	34,627	348,785
F. R. notes of other F. R. Banks	33,454		TOTAL LIABILITIES AND CAPITAL ACCOUNTS		19,027,335
Uncollected items	867,206				
Bank premises	41,749		Contingent Liability:		
Other assets	58,583	1,001,039	Commitments to make industrial advances		9,070
TOTAL ASSETS		19,027,335			

[a] *Annual Report of Board of Governors of the Federal Reserve System*, 1939, pp. 34–35.

[b] Includes Federal Reserve notes held by the United States Treasury or by a Federal Reserve Bank other than the issuing Bank.

27. Disposition of Net Earnings of the Federal Reserve Banks 1914–1939[a]

(In thousands of dollars)

Calendar Year	Gross Earnings	Net Earnings	Disposition of Net Earnings				
			Dividends Paid	Franchise Tax Paid to U. S. Treasury	Paid to U. S. Treasury (Sec. 13b)	Transferred to Surplus (Sec. 13b)	Transferred to Surplus (Sec. 7)
Total—1914–1939	1,315,810	622,257	178,316	149,138	846	−708[b]	294,665[c]
1914-15	2,173	−141	218	—	—	—	—
1916	5,218	2,751	1,743	—	—	—	—
1917	16,128	9,580	6,802	1,134	—	—	1,134
1918	67,584	52,716	5,541	—	—	—	48,334
1919	102,381	78,368	5,012	2,704	—	—	70,652
1920	181,297	149,295	5,654	60,725	—	—	82,916
1921	122,866	82,087	6,120	59,974	—	—	15,993
1922	50,499	16,498	6,307	10,851	—	—	−660
1923	50,709	12,711	6,553	3,613	—	—	2,545
1924	38,340	3,718	6,682	114	—	—	−3,078
1925	41,801	9,449	6,916	59	—	—	2,474
1926	47,600	16,612	7,329	818	—	—	8,465
1927	43,024	13,049	7,755	250	—	—	5,044
1928	64,053	32,122	8,458	2,585	—	—	21,079
1929	70,955	36,403	9,584	4,283	—	—	22,536
1930	36,424	7,988	10,268	17	—	—	−2,297
1931	29,701	2,972	10,030	—	—	—	−7,058
1932	50,019	22,314	9,282	2,011	—	—	11,021
1933	49,487	7,957	8,874	—	—	—	−917
1934	48,903	15,232	8,782	—	—	−60	6,510
1935	42,752	9,437	8,505	—	298	27	607
1936	37,901	8,513	7,830	—	227	103	353
1937	41,233	10,801	7,941	—	177	67	2,616
1938	36,261	9,582	8,019	—	120	−419	1,862
1939	38,501	12,243	8,111	—	24	−426	4,534

[a] Data compiled by the Board of Governors and published in its annual report for 1939, pp. 42-43. In all cases a dash indicates zero.

[b] On Dec. 31, 1939, surplus relating to funds received from the Secretary of the Treasury under Sec. 13b of the Federal Reserve Act, for the purpose of making loans to industry, amounted to $26,839,000 ($27,546,000 received from the Secretary of the Treasury, plus $1,000 direct net credits, minus the $708,000 debits shown here).

[c] On Dec. 31, 1939, surplus accumulated pursuant to Sec. 7 of the Federal Reserve Act amounted to $151,720,000, the following deductions having been made: $139,300,000 to charge off the cost of non-dividend stock of the Federal Deposit Insurance Corporation, $500,000 special charge-off on bank premises, $3,145,000 transferred to reserves for contingencies.

Footnotes for Table 28 on following page:

[a] Data compiled by the Board of Governors; exclude mutual savings banks, private banks, branches of foreign banks, and a few inactive banks and miscellaneous financial institutions sometimes included in State banking statistics. Non-par banks and banks with inadequate capital are not mutually exclusive. Dash indicates zero.

[b] Banks with out-of-town branches established after Feb. 25, 1927, are subject to special capital requirements. The first column under this heading comprises banks with no out-of-town branches established since that date; the second column comprises banks with one or more such branches.

28. Geographic Distribution of Certain Groups of Commercial Banks Ineligible for Membership in the Federal Reserve System, December 31, 1939[a]

State and Geographic Division	Non-Par Banks	Banks with Inadequate Capital to Meet Minimum Requirements[b]	
		For Operation in One City	For Operation of Out-of-Town Branches
United States	**2,629**	**2,389**	**429**
New England	—	**26**	**12**
Maine	—	—	4
New Hampshire	—	3	1
Vermont	—	1	2
Massachusetts	—	3	3
Rhode Island	—	4	2
Connecticut	—	15	—
Middle Atlantic	—	**54**	**6**
New York	—	15	3
New Jersey	—	17	1
Pennsylvania	—	22	2
East North Central	**188**	**225**	**130**
Ohio	—	36	10
Indiana	3	30	28
Illinois	27	71	—
Michigan	—	16	21
Wisconsin	158	72	71
West North Central	**996**	**1,094**	**141**
Minnesota	411	265	—
Iowa	110	102	117
Missouri	106	241	—
North Dakota	114	43	14
South Dakota	93	38	10
Nebraska	161	117	—
Kansas	1	288	—
South Atlantic	**580**	**309**	**63**
Delaware	—	5	—
Maryland	—	20	7
District of Columbia	—	4	—
Virginia	43	32	18
West Virginia	6	11	1
North Carolina	126	45	32
South Carolina	119	74	3
Georgia	199	80	1
Florida	87	38	1
East South Central	**488**	**285**	**36**
Kentucky	12	114	7
Tennessee	171	83	10
Alabama	130	30	—
Mississippi	175	58	19
West South Central	**326**	**287**	**25**
Arkansas	111	50	12
Louisiana	104	10	13
Oklahoma	12	124	—
Texas	99	103	—
Mountain	**23**	**48**	**9**
Montana	20	2	—
Idaho	—	6	—
Wyoming	2	9	—
Colorado	1	25	—
New Mexico	—	3	4
Arizona	—	—	2
Utah	—	3	3
Nevada	—	—	—
Pacific	**28**	**61**	**7**
Washington	25	31	1
Oregon	3	17	2
California	—	13	4

For footnotes, see bottom of preceding page.

29. Bank Deposits and Currency, 1890–1940

(In millions of dollars)

Year[a]	Total Deposits and Currency	Deposits[b]				Currency outside Banks[c]
		Total	Adjusted Demand	United States Government	Time	
1890	4,860	3,990	2,260	30	1,700	870
1891	5,060	4,140	2,330	30	1,780	920
1892	5,500	4,570	2,620	10	1,940	930
1893	5,500	4,510	2,510	10	1,990	990
1894	5,460	4,590	2,580	10	2,000	870
1895	5,700	4,830	2,730	10	2,090	870
1896	5,710	4,850	2,690	20	2,140	860
1897	5,880	4,990	2,750	20	2,220	890
1898	6,630	5,610	3,200	50	2,360	1,020
1899	7,590	6,550	3,870	80	2,600	1,040
1900	8,290	7,110	4,210	100	2,800	1,180
1901	9,340	8,100	4,960	100	3,040	1,240
1902	10,170	8,910	5,370	120	3,420	1,260
1903	10,780	9,420	5,540	150	3,730	1,360
1904	11,250	9,880	5,850	110	3,920	1,370
1905	12,560	11,130	6,560	80	4,490	1,430
1906	13,400	11,860	6,860	90	4,910	1,540
1907	14,350	12,870	7,110	180	5,580	1,480
1908	14,040	12,560	6,520	130	5,910	1,480
1909	15,120	13,670	7,440	70	6,160	1,450
1910	16,180	14,710	8,280	50	6,380	1,470
1911	16,990	15,550	8,810	50	6,690	1,440
1912	18,180	16,690	8,870	60	7,760	1,490
1913	18,700	17,130	8,810	50	8,270	1,570
1914	19,640	18,110	10,060	70	7,980	1,530
1915	20,460	18,880	9,900	50	8,930	1,580
1916	24,010	22,130	12,250	40	9,840	1,880
1917	28,110	25,830	12,570	830	12,430	2,280
1918	31,640	28,340	13,780	1,570	12,990	3,300
1919	35,520	31,910	16,980	960	13,970	3,610
1920	39,820	35,690	19,080	300	16,310	4,130
1921	37,840	34,140	17,030	420	16,690	3,700
1922	39,140	35,780	17,990	170	17,620	3,360
1923	42,520	38,760	18,860	330	19,570	3,760
1924	44,620	40,960	19,570	190	21,200	3,660
1925	48,030	44,440	21,150	180	23,110	3,590
1926	50,290	46,670	21,610	230	24,830	3,620
1927	52,480	48,900	22,250	230	26,420	3,580
1928	54,750	51,100	22,340	270	28,490	3,650
1929	55,210	51,550	22,620	380	28,550	3,660
1930	54,530	51,150	21,870	320	28,960	3,380
1931	52,940	49,270	19,910	440	28,920	3,670
1932	45,470	40,830	15,670	420	24,740	4,640
1933	41,720	36,930	14,450	850	21,630	4,790
1934	45,890	41,210	16,650	1,740	22,820	4,680
1935	49,970	45,160	20,540	820	23,800	4,810
1936	55,170	49,910	23,860	1,150	24,900	5,260
1937	57,420	51,890	25,260	670	25,960	5,530
1938	56,740	51,270	24,390	610	26,270	5,470
1939	60,950	54,940	27,350	790	26,800	6,010
1940	66,960	60,260	31,960	830	27,470	6,700

[a] Figures as of June 30 or nearest available date.

[b] Data for adjusted demand and time deposits for the years 1890–1918 derived from estimates published by Professor James W. Angell in *The Behavior of Money*; for the years 1919–1940, from reports of condition of all banks in the United States. In all cases interbank deposits were excluded and demand deposits were adjusted for items in process of collection. Deposits in the Postal Savings System and in mutual savings banks were included in time deposits.

[c] Treasury's published figures for money in circulation, adjusted to exclude vault cash of banks and $287,000,000 of gold coin reported in circulation Jan. 31, 1934 as follows: for period 1880–1897, $6,580,000 of gold coin deducted annually on a cumulative basis; for period 1898–1913, $10,530,000 deducted annually on a cumulative basis; for period 1914–1933, the entire $287,000,000 deducted. In 1934 gold in circulation was dropped from the reported figures (see *Annual Report of the Federal Reserve Board*, 1934, p. 67, Note 2).

30. Member Bank Reserves and Related Items, 1918–1939[a]

(Monthly averages of daily figures, in millions of dollars)

Year and Month	Reserve Bank Credit[b]	Gold Stock[c]	Money in Circulation[c]	Treasury Cash and Deposits with Federal Reserve Banks	Member Bank Reserve Balances	
					Total	Excess[d]
1918—January	1,170	2,865	4,019	364	1,467	
February	1,143	2,872	3,993	341	1,468	
March	1,263	2,875	4,086	351	1,466	
April	1,381	2,876	4,136	361	1,504	
May	1,412	2,876	4,114	362	1,482	
June	1,554	2,875	4,161	418	1,512	
July	1,631	2,874	4,233	443	1,448	
August	1,750	2,870	4,379	408	1,459	
September	2,073	2,869	4,624	422	1,507	
October	2,355	2,864	4,847	417	1,539	
November	2,416	2,868	4,896	422	1,520	
December	2,491	2,869	4,956	376	1,586	
1919—January	2,359	2,873	4,763	378	1,635	
February	2,341	2,875	4,645	467	1,612	
March	2,480	2,874	4,655	526	1,652	
April	2,451	2,879	4,683	439	1,656	
May	2,498	2,889	4,654	470	1,686	
June	2,467	2,882	4,604	470	1,696	
July	2,599	2,800	4,609	494	1,719	
August	2,559	2,827	4,626	456	1,740	
September	2,636	2,856	4,702	453	1,769	
October	2,847	2,833	4,819	497	1,793	
November	3,038	2,783	4,921	479	1,837	
December	3,203	2,734	5,055	441	1,820	
1920—January	3,205	2,674	4,944	443	1,883	
February	3,314	2,622	4,998	449	1,858	
March	3,413	2,572	5,111	348	1,878	
April	3,364	2,534	5,085	279	1,870	
May	3,385	2,548	5,127	271	1,853	
June	3,382	2,567	5,161	257	1,853	
July	3,344	2,575	5,191	236	1,840	
August	3,353	2,568	5,222	239	1,807	
September	3,495	2,560	5,313	268	1,817	
October	3,522	2,568	5,386	238	1,815	
November	3,467	2,586	5,375	236	1,782	
December	3,442	2,607	5,371	256	1,758	
1921—January	3,110	2,644	5,114	246	1,773	
February	2,918	2,688	4,976	272	1,728	
March	2,798	2,753	4,917	310	1,694	
April	2,564	2,830	4,791	285	1,665	
May	2,386	2,910	4,755	250	1,657	
June	2,211	2,967	4,649	238	1,664	
July	2,049	3,015	4,570	233	1,639	
August	1,863	3,105	4,484	251	1,621	
September	1,767	3,192	4,465	266	1,629	
October	1,669	3,260	4,434	271	1,652	
November	1,544	3,308	4,386	260	1,663	
December	1,548	3,356	4,431	266	1,673	
1922—January	1,326	3,385	4,240	288	1,707	
February	1,233	3,417	4,164	313	1,689	
March	1,207	3,449	4,196	263	1,711	
April	1,210	3,469	4,195	272	1,733	
May	1,208	3,481	4,163	280	1,783	
June	1,192	3,489	4,142	262	1,820	
July	1,170	3,516	4,156	267	1,812	
August	1,102	3,553	4,161	258	1,799	
September	1,180	3,573	4,265	256	1,811	
October	1,246	3,597	4,356	241	1,836	
November	1,265	3,609	4,384	266	1,825	
December	1,377	3,630	4,540	250	1,840	

For footnotes, see p. 452.

30. Member Bank Reserves and Related Items, 1918–1939[a]—*Continued*

(Monthly averages of daily figures, in millions of dollars)

Year and Month	Reserve Bank Credit[b]	Gold Stock[c]	Money in Circulation[c]	Treasury Cash and Deposits with Federal Reserve Banks	Member Bank Reserve Balances	
					Total	Excess[d]
1923—January	1,249	3,655	4,392	239	1,918	
February	1,205	3,673	4,385	263	1,901	
March	1,228	3,679	4,426	290	1,873	
April	1,214	3,688	4,444	276	1,869	
May	1,222	3,706	4,477	254	1,874	
June	1,178	3,753	4,492	252	1,867	
July	1,179	3,774	4,525	244	1,867	
August	1,127	3,810	4,546	249	1,835	
September	1,184	3,836	4,614	260	1,848	
October	1,204	3,868	4,654	250	1,864	
November	1,204	3,895	4,666	249	1,875	
December	1,260	3,939	4,784	238	1,882	
1924—January	1,041	3,979	4,560	260	1,911	
February	955	4,015	4,545	253	1,892	
March	990	4,053	4,583	267	1,915	
April	981	4,096	4,599	297	1,905	
May	879	4,146	4,579	251	1,922	
June	886	4,184	4,543	260	2,001	
July	879	4,216	4,523	254	2,046	
August	881	4,229	4,513	255	2,072	
September	983	4,228	4,566	254	2,120	
October	1,057	4,219	4,604	264	2,141	
November	1,135	4,230	4,683	250	2,164	
December	1,288	4,220	4,801	257	2,182	
1925—January	1,125	4,181	4,576	261	2,194	
February	1,094	4,105	4,518	247	2,159	
March	1,122	4,053	4,527	237	2,137	
April	1,110	4,053	4,516	244	2,123	
May	1,100	4,066	4,504	244	2,132	
June	1,118	4,073	4,503	255	2,141	
July	1,118	4,074	4,507	228	2,160	
August	1,143	4,085	4,530	247	2,151	
September	1,227	4,099	4,621	236	2,161	
October	1,321	4,104	4,658	246	2,203	
November	1,352	4,120	4,673	246	2,221	
December	1,507	4,110	4,832	240	2,219	
1926—January	1,279	4,120	4,604	234	2,236	
February	1,218	4,138	4,567	261	2,208	
March	1,216	4,157	4,577	274	2,198	
April	1,204	4,161	4,595	262	2,183	
May	1,200	4,147	4,584	241	2,199	
June	1,185	4,151	4,594	215	2,206	
July	1,221	4,173	4,629	233	2,212	
August	1,203	4,180	4,625	229	2,201	
September	1,278	4,184	4,682	236	2,211	
October	1,322	4,185	4,714	243	2,219	
November	1,318	4,190	4,718	236	2,214	
December	1,445	4,194	4,844	243	2,218	
1927—January	1,186	4,240	4,616	230	2,243	
February	1,043	4,289	4,556	235	2,212	
March	1,055	4,308	4,569	228	2,240	
April	1,087	4,314	4,592	236	2,248	
May	1,041	4,364	4,573	233	2,262	
June	1,081	4,319	4,544	227	2,301	
July	1,115	4,288	4,564	223	2,289	
August	1,093	4,298	4,562	223	2,283	
September	1,187	4,297	4,630	227	2,300	
October	1,254	4,279	4,644	227	2,326	
November	1,377	4,203	4,649	214	2,373	
December	1,568	4,129	4,761	209	2,399	

For footnotes, see p. 452.

30. MEMBER BANK RESERVES AND RELATED ITEMS, 1918–1939[a]—*Continued*

(Monthly averages of daily figures, in millions of dollars)

YEAR AND MONTH	RESERVE BANK CREDIT[b]	GOLD STOCK[c]	MONEY IN CIRCULATION[c]	TREASURY CASH AND DEPOSITS WITH FEDERAL RESERVE BANKS	MEMBER BANK RESERVE BALANCES	
					Total	Excess[d]
1928—January	1,388	4,090	4,498	227	2,426	
February	1,264	4,086	4,422	229	2,368	
March	1,295	4,048	4,423	225	2,365	
April	1,405	4,000	4,443	229	2,396	
May	1,472	3,920	4,435	229	2,388	
June	1,531	3,832	4,449	215	2,355	
July	1,531	3,826	4,459	223	2,324	
August	1,485	3,831	4,456	233	2,274	
September	1,581	3,838	4,517	220	2,314	
October	1,621	3,846	4,549	225	2,332	
November	1,653	3,864	4,573	224	2,352	
December	1,824	3,855	4,721	222	2,367	
1929—January	1,613	3,828	4,461	223	2,387	53
February	1,502	3,856	4,399	226	2,357	46
March	1,481	3,879	4,422	220	2,337	41
April	1,377	3,939	4,392	230	2,308	37
May	1,303	4,005	4,397	231	2,296	33
June	1,317	4,024	4,400	240	2,314	42
July	1,380	4,048	4,477	227	2,334	42
August	1,376	4,064	4,490	226	2,322	36
September	1,427	4,081	4,524	240	2,335	34
October	1,450	4,094	4,523	229	2,386	42
November	1,631	4,087	4,558	235	2,521	65
December	1,643	4,037	4,656	226	2,395	48
1930—January	1,357	3,996	4,365	238	2,349	45
February	1,181	4,030	4,267	241	2,305	53
March	1,095	4,107	4,245	225	2,330	56
April	1,072	4,156	4,231	242	2,350	42
May	996	4,218	4,210	244	2,356	45
June	1,000	4,241	4,202	249	2,392	54
July	1,003	4,245	4,196	235	2,417	74
August	998	4,209	4,189	238	2,392	52
September	1,016	4,216	4,206	242	2,397	59
October	1,020	4,233	4,214	240	2,407	59
November	1,033	4,266	4,241	235	2,433	52
December	1,273	4,296	4,536	234	2,415	73
1931—January	1,129	4,335	4,408	242	2,433	105
February	936	4,369	4,311	245	2,370	57
March	921	4,395	4,303	248	2,386	67
April	952	4,424	4,360	255	2,376	56
May	926	4,480	4,392	240	2,387	67
June	945	4,578	4,463	263	2,404	129
July	954	4,671	4,549	239	2,407	124
August	1,107	4,688	4,660	259	2,345	101
September	1,313	4,661	4,846	255	2,333	120
October	2,088	4,160	5,191	256	2,256	129
November	2,035	4,076	5,231	260	2,118	57
December	1,950	4,163	5,324	249	2,069	60
1932—January	1,864	4,165	5,358	264	1,979	35
February	1,785	4,097	5,340	262	1,907	44
March	1,652	4,085	5,244	267	1,899	59
April	1,694	4,094	5,165	272	1,996	152
May	1,959	3,986	5,169	272	2,138	277
June	2,262	3,669	5,243	271	2,062	234
July	2,422	3,654	5,464	276	2,003	204
August	2,353	3,743	5,432	281	2,073	270
September	2,282	3,853	5,398	304	2,181	346
October	2,231	3,939	5,356	285	2,307	436
November	2,211	4,005	5,356	277	2,378	482
December	2,192	4,142	5,412	287	2,435	526

For footnotes, see p. 452.

30. Member Bank Reserves and Related Items, 1918–1939[a]—*Continued*

(Monthly averages of daily figures, in millions of dollars)

Year and Month	Reserve Bank Credit[b]	Gold Stock[c]	Money in Circulation[c]	Treasury Cash and Deposits with Federal Reserve Banks	Member Bank Reserve Balances	
					Total	Excess[d]
1933—January	2,110	4,260	5,344	303	2,516	584
February	2,224	4,204	5,605	314	2,291	417
March	3,237	3,974	6,711	359	1,914	248[d]
April	2,515	4,014	5,850	390	2,086	379
May	2,286	4,026	5,589	371	2,125	319
June	2,208	4,030	5,455	353	2,211	363
July	2,211	4,032	5,388	347	2,268	436
August	2,239	4,036	5,329	316	2,375	566
September	2,358	4,040	5,345	328	2,489	675
October	2,492	4,037	5,369	333	2,590	758
November	2,574	4,036	5,394	349	2,629	794
December	2,669	4,036	5,524	357	2,616	766
1934—January	2,656	4,036	5,382	397	2,764	866
February	2,597	7,138	5,339	3,448	2,822	891
March	2,535	7,602	5,368	3,298	3,361	1,375
April	2,507	7,736	5,366	3,222	3,594	1,541
May	2,479	7,759	5,355	3,083	3,695	1,623
June	2,464	7,821	5,341	3,054	3,790	1,685
July	2,469	7,893	5,350	2,999	3,928	1,789
August	2,463	7,971	5,355	2,976	4,045	1,884
September	2,469	7,971	5,427	3,054	3,947	1,754
October	2,457	7,989	5,473	3,011	3,964	1,731
November	2,466	8,047	5,494	2,970	4,100	1,834
December	2,472	8,191	5,577	3,120	4,037	1,748
1935—January	2,465	8,284	5,411	3,053	4,355	2,035
February	2,462	8,465	5,439	2,965	4,601	2,237
March	2,461	8,552	5,477	3,122	4,452	2,065
April	2,471	8,641	5,500	3,209	4,436	2,026
May	2,476	8,755	5,507	2,942	4,778	2,297
June	2,479	9,025	5,522	2,989	4,979	2,438
July	2,473	9,128	5,550	3,032	4,970	2,385
August	2,476	9,180	5,576	2,795	5,232	2,636
September	2,480	9,246	5,651	2,734	5,243	2,628
October	2,482	9,545	5,704	2,693	5,469	2,820
November	2,482	9,777	5,770	2,630	5,757	3,061
December	2,494	10,072	5,897	2,869	5,716	2,983
1936—January	2,484	10,158	5,757	3,058	5,780	3,033
February	2,493	10,164	5,779	2,981	5,808	3,038
March	2,484	10,172	5,857	3,278	5,420	2,653
April	2,480	10,202	5,892	3,384	5,300	2,510
May	2,476	10,324	5,918	3,133	5,638	2,800
June	2,478	10,514	6,062	3,372	5,484	2,593
July	2,474	10,629	6,203	2,998	5,861	2,907
August	2,474	10,674	6,191	2,691	6,181	2,458
September	2,479	10,764	6,258	2,619	6,345	1,852
October	2,480	10,983	6,321	2,559	6,594	2,043
November	2,472	11,116	6,401	2,459	6,785	2,219
December	2,498	11,220	6,563	2,512	6,665	2,046
1937—January	2,485	11,310	6,400	2,650	6,716	2,093
February	2,475	11,399	6,369	2,736	6,747	2,152
March	2,472	11,503	6,391	2,887	6,704	1,371
April	2,522	11,686	6,397	3,022	6,824	1,552
May	2,577	11,901	6,426	3,154	6,932	927
June	2,578	12,189	6,435	3,453	6,878	876
July	2,574	12,404	6,475	3,669	6,845	876
August	2,573	12,512	6,500	3,867	6,701	750
September	2,584	12,653	6,558	3,808	6,854	900
October	2,583	12,782	6,566	3,731	6,954	1,043
November	2,592	12,788	6,558	3,767	6,919	1,104
December	2,628	12,765	6,618	3,810	6,879	1,071

For footnotes, see p. 452.

30. MEMBER BANK RESERVES AND RELATED ITEMS, 1918–1939[a]—*Continued*

(Monthly averages of daily figures, in millions of dollars)

YEAR AND MONTH	RESERVE BANK CREDIT[b]	GOLD STOCK[c]	MONEY IN CIRCULATION[c]	TREASURY CASH AND DEPOSITS WITH FEDERAL RESERVE BANKS	MEMBER BANK RESERVE BALANCES	
					Total	Excess[d]
1938—January	2,602	12,756	6,397	3,757	7,183	1,353
February	2,598	12,768	6,319	3,794	7,230	1,406
March	2,597	12,778	6,338	3,779	7,326	1,524
April	2,606	12,829	6,387	3,669	7,469	2,071
May	2,594	12,891	6,415	3,542	7,587	2,525
June	2,592	12,946	6,433	3,250	7,878	2,762
July	2,599	12,985	6,464	3,035	8,167	3,026
August	2,590	13,057	6,482	3,166	8,119	2,955
September	2,610	13,441	6,570	3,421	8,196	2,920
October	2,598	13,940	6,668	3,447	8,546	3,143
November	2,592	14,162	6,750	3,254	8,727	3,276
December	2,618	14,416	6,888	3,396	8,745	3,226
1939—January	2,598	14,599	6,712	3,553	9,029	3,484
February	2,594	14,778	6,697	3,813	8,925	3,373
March	2,590	15,014	6,764	3,875	9,021	3,432
April	2,593	15,509	6,867	3,704	9,624	3,926
May	2,582	15,878	6,919	3,589	9,997	4,212
June	2,591	16,028	6,966	3,497	10,085	4,246
July	2,569	16,182	7,051	3,314	10,321	4,402
August	2,467	16,390	7,098	3,127	10,659	4,607
September	2,794	16,823	7,249	2,864	11,443	5,198
October	2,832	17,002	7,328	2,597	11,862	5,490
November	2,722	17,217	7,413	2,768	11,688	5,259
December	2,612	17,518	7,609	3,018	11,473	5,011
1940—January	2,542	17,804	7,443	2,945	11,985	5,464
February	2,546	18,061	7,426	2,961	12,215	5,626
March	2,539	18,310	7,488	2,974	12,362	5,734
April	2,527	18,608	7,532	2,881	12,703	6,003
May	2,529	18,974	7,617	2,671	13,086	6,288
June	2,542	19,560	7,752	2,480	13,596	6,696

[a] Data compiled by the Board of Governors; figures through September 1935 published in the pamphlet *Supply and Use of Member Bank Reserve Funds*, and thereafter in current issues of the *Federal Reserve Bulletin*.

[b] Includes bills discounted and bills bought, United States Government securities, and other forms of credit extended by the Federal Reserve Banks.

[c] Excludes for the entire period 287 million dollars of gold coin reported as in circulation prior to Jan. 31, 1934. (See *Annual Report of the Federal Reserve Board*, 1934, p. 67, note 2.)

[d] Figures for excess reserves not available prior to 1929 and since April 1933 are for licensed member banks only. The figure for March 1933 has been estimated.

31. National Income and Volume and Turnover of Bank Deposits 1919–1939

(Dollar amounts in millions)

Calendar Year	National Income[a]	Debits at All Commercial Banks[b]	Deposits at All Commercial Banks[c]	Annual Rate of Turnover of Deposits[d]		
				At Weekly Reporting Member Banks		At Non-reporting Banks
				In New York City	In 100 Other Leading Cities	
1919	$67,300	$663,000	$27,070	53.2	24.1	15.7
1920	69,300	721,000	30,420	56.0	27.0	14.5
1921	52,300	591,000	28,410	51.4	22.3	12.7
1922	60,100	643,000	29,740	55.3	21.4	13.2
1923	69,700	685,000	32,780	56.1	21.7	12.7
1924	69,600	716,000	34,310	56.8	20.8	12.5
1925	74,400	820,000	37,320	60.8	21.3	13.0
1926	76,500	872,000	38,970	65.2	21.3	13.0
1927	75,800	952,000	40,480	70.4	21.6	13.3
1928	79,600	1,114,000	42,410	85.3	22.1	14.2
1929	82,900	1,276,000	42,630	99.5	23.8	15.8
1930	68,900	931,000	41,640	61.3	19.8	13.1
1931	54,300	685,000	37,750	45.0	16.4	11.3
1932	40,100	471,000	31,510	31.7	13.6	10.2
1933	42,400	437,000	28,660	29.7	13.5	10.8
1934	50,300	491,000	30,580	27.8	14.3	12.6
1935	55,900	547,000	34,770	28.3	14.7	11.6
1936	65,200	628,000	38,910	29.7	15.4	11.6
1937	71,200	650,000	40,540	27.5	16.0	11.9
1938	63,600	566,000	40,560	23.5	13.8	10.6
1939	69,400	592,000	43,650	20.3	13.5	10.9

[a] Basic data for 1919–1928 from Simon Kuznets, *National Income and Capital Formation*, p. 8. Figures there given have been so used as to make them as comparable as possible with the estimates prepared by the Department of Commerce for 1929 and later years.

[b] Data compiled by the Board of Governors. The figures include the annual volume of debits to demand and time deposits, excluding interbank accounts, as reported by commercial bank members of some 250 clearing houses. These debits were adjusted to include estimated debits at other banks.

[c] Data compiled by the Board of Governors. The figures include the average volume of total deposits at all commercial banks minus interbank deposits and cash items in process of collection. These figures are partly estimated.

[d] Data compiled by the Board of Governors. The turnover rate at weekly reporting member banks is based on actual figures of debits and deposits, exclusive of interbank deposits and collection items, reported by these banks in 101 leading cities. The turnover rate for nonreporting banks is based on debit and deposit figures which are subject to the conditions mentioned in notes b and c.

32. Money Rates, 1919–1939

(Per cent per annum)

Year and Month	Rates Charged Customers by Banks[a]			Federal Reserve Bank Discount Rate[b]		New York Rate on Open-Market Prime Bankers' Acceptances, 90-Day[c]	New York Rate on Open-Market Prime Commercial Paper, 4–6 Months[c]
	In New York City	In Northern and Eastern Cities	In Southern and Western Cities	New York City	Kansas City		
1919—January	5.54	5.79	6.11	4	4½	4.25	5.44
February	5.36	5.67	6.03	4	4½	4.25	5.41
March	5.46	5.66	6.02	4	4½	4.25	5.50
April	5.56	5.72	6.01	4	4½	4.25	5.50
May	5.43	5.59	6.00	4	4½	4.25	5.50
June	5.45	5.70	5.91	4	4½	4.25	5.66
July	5.49	5.75	5.98	4	4½	4.26	5.55
August	5.49	5.75	5.94	4	4½	4.28	5.50
September	5.49	5.76	5.93	4	4½	4.25	5.50
October	5.63	5.76	5.96	4	4½	4.25	5.50
November	5.56	5.77	5.95	(3) 4½	(4) 5	4.52	5.62
December	5.61	5.86	6.10	4½	5	4.95	6.00
1920—January	5.93	5.99	6.16	(23) 6	(3) 5½	5.37	6.06
February	6.00	6.15	6.26	6	(23) 6	5.50	6.53
March	6.00	6.32	6.43	6	6	6.00	6.88
April	6.09	6.68	6.47	6	6	6.00	6.97
May	6.00	6.79	6.56	6	6	6.13	7.38
June	6.00	6.98	6.88	(1) 7	6	6.25	7.95
July	6.43	7.01	7.00	7	6	6.25	8.09
August	6.36	7.01	6.99	7	6	6.25	8.25
September	6.57	6.98	7.07	7	6	6.25	8.16
October	6.57	7.00	7.04	7	6	6.25	8.12
November	6.71	7.00	7.08	7	6	6.23	8.08
December	6.36	6.97	7.07	7	6	6.25	8.00
1921—January	6.71	6.99	7.10	7	6	5.94	7.75
February	6.78	6.95	7.11	7	6	5.97	7.75
March	6.70	6.94	7.13	7	6	5.98	7.75
April	6.64	6.99	7.12	7	6	5.67	7.50
May	6.68	6.94	7.06	(5) 6½	6	5.69	7.00
June	6.43	6.97	7.05	(16) 6	6	5.59	6.50
July	6.21	6.93	7.04	(21) 5½	6	5.25	6.25
August	6.25	6.59	7.03	5½	6	5.00	6.25
September	6.11	6.62	6.96	(22) 5	6	4.94	6.00
October	5.93	6.65	6.85	5	6	4.49	5.75
November	5.96	6.32	6.74	(3) 4½	(2) 5	4.27	5.25
December	5.68	6.19	6.67	4½	5	4.16	5.00
1922—January	5.50	6.08	6.56	4½	5	3.95	4.75
February	5.48	5.89	6.46	4½	5	4.00	5.00
March	5.43	5.77	6.35	4½	5	3.73	4.75
April	5.46	5.46	6.22	4½	5	3.32	4.50
May	5.06	5.43	6.23	4½	5	3.18	4.25
June	4.93	5.43	6.13	(22) 4	5	3.07	4.25
July	5.16	5.31	6.04	4	5	3.00	4.00
August	4.66	5.27	6.02	4	(12) 4½	3.00	4.00
September	4.70	5.12	5.94	4	4½	3.12	4.25
October	4.74	5.20	5.89	4	4½	3.72	4.50
November	4.82	5.38	5.94	4	4½	4.00	4.75
December	4.86	5.44	5.90	4	4½	4.00	4.75
1923—January	4.82	5.34	5.90	4	4½	3.98	4.50
February	4.91	5.38	5.91	(23) 4½	4½	3.99	4.75
March	4.98	5.52	5.83	4½	4½	4.00	5.00
April	5.32	5.49	5.94	4½	4½	4.14	5.13
May	5.27	5.54	5.92	4½	4½	4.13	5.00
June	5.21	5.45	5.91	4½	4½	4.13	5.00
July	5.29	5.47	5.96	4½	4½	4.13	5.00
August	5.18	5.64	5.98	4½	4½	4.13	5.25
September	5.33	5.59	5.94	4½	4½	4.13	5.38
October	5.37	5.57	5.95	4½	4½	4.13	5.25
November	5.39	5.51	5.99	4½	4½	4.13	5.00
December	5.21	5.48	5.99	4½	4½	4.13	4.88

For footnotes, see p. 458.

32. Money Rates, 1919–1939—*Continued*

(Per cent per annum)

Year and Month	Rates Charged Customers by Banks[a]			Federal Reserve Bank Discount Rate[b]		New York Rate on Open-Market Prime Bankers' Acceptances, 90-Day[c]	New York Rate on Open-Market Prime Commercial Paper, 4–6 Months[c]
	In New York City	In Northern and Eastern Cities	In Southern and Western Cities	New York City	Kansas City		
1924—January	5.21	5.53	6.02	4½	4½	4.09	4.75
February	5.07	5.38	5.91	4½	4½	4.07	4.75
March	5.06	5.37	5.89	4½	4½	4.04	4.63
April	4.98	5.31	5.89	4½	4½	3.95	4.50
May	4.89	5.26	5.79	(1) 4	4½	3.29	4.38
June	4.64	5.12	5.69	(12) 3½	4½	2.45	3.63
July	4.21	5.09	5.63	3½	(1) 4	2.01	3.38
August	4.09	4.80	5.57	(8) 3	4	2.10	3.13
September	4.20	4.87	5.55	3	4	2.33	3.25
October	4.41	4.87	5.47	3	4	2.21	3.13
November	4.13	4.80	5.53	3	4	2.37	3.38
December	4.29	4.87	5.53	3	4	2.89	3.62
1925—January	4.16	4.80	5.57	3	4	3.00	3.50
February	4.43	4.79	5.55	(27) 3½	4	3.08	3.75
March	4.53	4.89	5.61	3½	4	3.25	4.00
April	4.48	4.92	5.61	3½	4	3.14	4.00
May	4.38	4.95	5.58	3½	4	3.17	3.88
June	4.36	4.95	5.59	3½	4	3.25	3.88
July	4.46	4.90	5.59	3½	4	3.25	3.88
August	4.36	4.98	5.60	3½	4	3.27	4.13
September	4.57	5.04	5.55	3½	4	3.50	4.25
October	4.62	5.16	5.53	3½	4	3.50	4.38
November	4.61	5.20	5.55	3½	4	3.50	4.38
December	4.70	5.17	5.61	3½	4	3.50	4.38
1926—January	4.64	5.14	5.56	(8) 4	4	3.67	4.37
February	4.68	5.11	5.65	4	4	3.63	4.25
March	4.62	5.15	5.62	4	4	3.63	4.37
April	4.62	5.17	5.65	(23) 3½	4	3.42	4.37
May	4.66	5.07	5.61	3½	4	3.20	4.00
June	4.58	4.87	5.55	3½	4	3.32	4.00
July	4.38	4.92	5.54	3½	4	3.38	4.13
August	4.62	4.91	5.56	(13) 4	4	3.57	4.37
September	4.81	5.08	5.60	4	4	3.88	4.63
October	4.85	5.15	5.66	4	4	3.88	4.63
November	4.79	5.07	5.67	4	4	3.79	4.50
December	4.79	5.09	5.68	4	4	3.83	4.50
1927—January	4.66	4.99	5.72	4	4	3.69	4.25
February	4.56	4.98	5.71	4	4	3.69	4.13
March	4.56	4.88	5.65	4	4	3.63	4.13
April	4.63	4.90	5.57	4	4	3.63	4.13
May	4.63	4.95	5.59	4	4	3.63	4.13
June	4.60	4.93	5.54	4	4	3.63	4.25
July	4.56	4.90	5.52	4	(29) 3½	3.50	4.25
August	4.41	4.87	5.53	(5) 3½	3½	3.13	4.00
September	4.44	4.77	5.61	3½	3½	3.13	4.00
October	4.49	4.79	5.56	3½	3½	3.25	4.00
November	4.35	4.82	5.56	3½	3½	3.25	4.00
December	4.50	4.76	5.60	3½	3½	3.25	4.00
1928—January[d]	4.38	4.52	5.25	3½	3½	3.38	4.00
February	4.25	4.59	5.18	(3) 4	(10) 4	3.50	4.00
March	4.38	4.74	5.23	4	4	3.50	4.13
April	4.50	4.69	5.23	4	4	3.75	4.38
May	4.63	4.87	5.22	(18) 4½	4	4.00	4.50
June	4.88	5.12	5.34	4½	(7) 4½	4.06	4.88
July	5.25	5.39	5.50	(13) 5	4½	4.25	5.13
August	5.38	5.42	5.51	5	4½	4.63	5.38
September	5.50	5.62	5.52	5	4½	4.50	5.63
October	5.50	5.64	5.59	5	4½	4.50	5.50
November	5.38	5.66	5.64	5	4½	4.50	5.38
December	5.50	5.70	5.70	5	4½	4.50	5.38

For footnotes, see p. 458.

32. Money Rates, 1919–1939—*Continued*

(Per cent per annum)

Year and Month	Rates Charged Customers by Banks[a]			Federal Reserve Bank Discount Rate[b]		New York Rate on Open-Market Prime Bankers' Acceptances, 90-Day[c]	New York Rate on Open-Market Prime Commercial Paper, 4–6 Months[c]
	In New York City	In Northern and Eastern Cities	In Southern and Western Cities	New York City	Kansas City		
1929—January	5.50	5.70	5.73	5	4½	4.88	5.38
February	5.48	5.64	5.77	5	4½	5.13	5.50
March	5.57	5.71	5.80	5	4½	5.38	5.88
April	5.72	5.75	5.86	5	4½	5.50	6.00
May	5.76	5.79	5.88	5	(6) 5	5.50	6.00
June	5.79	5.85	5.97	5	5	5.50	6.00
July	5.80	5.80	5.98	5	5	5.13	6.00
August	6.03	5.92	6.03	(9) 6	5	5.13	6.13
September	6.09	6.01	6.04	6	5	5.13	6.25
October	6.11	5.99	6.08	6	5	5.13	6.25
November	5.70	5.93	6.07	(1) 5	5	4.19	5.75
				(15) 4½			
December	5.54	5.78	5.93	4½	(20) 4½	3.88	5.00
1930—January	5.43	5.72	5.90	4½	4½	3.94	4.88
February	5.10	5.55	5.80	(7) 4	(15) 4	3.81	4.75
March	4.91	5.30	5.73	(14) 3½	4	3.13	4.25
April	4.61	4.98	5.56	3½	4	2.94	3.88
May	4.44	4.93	5.42	(2) 3	4	2.50	3.75
June	4.28	4.89	5.36	(20) 2½	4	2.13	3.50
July	4.22	4.53	5.31	2½	4	1.88	3.25
August	4.14	4.47	5.25	2½	(15) 3½	1.88	3.00
September	4.00	4.44	5.15	2½	3½	1.88	3.00
October	3.92	4.49	5.18	2½	3½	1.88	3.00
November	3.79	4.38	5.17	2½	3½	1.88	2.88
December	3.82	4.38	5.01	(24) 2	3½	1.88	2.88
1931—January	3.74	4.23	5.01	2	3½	1.56	2.88
February	3.89	4.31	4.96	2	3½	1.44	2.63
March	3.67	4.29	4.90	2	3½	1.50	2.50
April	3.67	4.22	4.93	2	3½	1.50	2.38
May	3.57	4.19	4.74	(8) 1½	(21) 3	1.00	2.13
June	3.66	4.15	4.89	1½	3	.88	2.00
July	3.70	4.08	4.72	1½	3	.88	2.00
August	3.58	4.10	4.75	1½	3	.88	2.00
September	3.50	4.09	4.76	1½	3	1.06	2.00
October	3.82	4.30	4.85	(9) 2½	(23) 3½	2.25	3.13
				(16) 3½			
November	4.55	4.53	5.18	3½	3½	3.06	4.00
December	4.48	4.60	5.15	3½	3½	3.00	3.88
1932—January	4.51	4.86	5.26	3½	3½	2.88	3.88
February	4.52	4.93	5.25	(26) 3	3½	2.81	3.88
March	4.53	4.93	5.29	3	3½	2.50	3.63
April	4.46	4.89	5.25	3	3½	1.50	3.50
May	4.24	4.89	5.22	3	3½	1.00	3.13
June	4.38	4.92	5.18	(24) 2½	3½	.88	2.75
July	4.22	4.80	5.20	2½	3½	.75	2.50
August	4.14	4.88	5.29	2½	3½	.75	2.25
September	3.94	4.71	5.20	2½	3½	.75	2.13
October	4.01	4.68	5.07	2½	3½	.63	2.00
November	3.66	4.60	5.07	2½	3½	.50	1.63
December	3.78	4.61	5.19	2½	3½	.38	1.50
1933—January	3.62	4.53	5.11	2½	3½	.31	1.38
February	3.66	4.38	5.05	2½	3½	.44	1.38
March	4.79	5.14	5.35	(3) 3½	3½	2.38	3.00
April	3.94	4.88	5.25	(7) 3	3½	.88	2.63
May	3.71	4.66	5.27	(26) 2½	3½	.50	2.13
June	3.51	4.68	5.15	2½	3½	.38	1.75
July	3.29	4.50	4.99	2½	3½	.44	1.63
August	3.32	4.31	5.00	2½	3½	.44	1.50
September	3.00	4.20	4.95	2½	3½	.25	1.38
October	2.96	4.05	4.82	(20) 2	3½	.25	1.25
November	2.80	4.07	4.74	2	3½	.38	1.25
December	2.61	4.09	4.76	2	3½	.63	1.38

For footnotes, see p. 458.

32. Money Rates, 1919–1939—*Continued*

(Per cent per annum)

Year and Month	Rates Charged Customers by Banks[a]			Federal Reserve Bank Discount Rate[b]		New York Rate on Open-Market Prime Bankers' Acceptances, 90-Day[c]	New York Rate on Open-Market Prime Commercial Paper, 4–6 Months[c]
	In New York City	In Northern and Eastern Cities	In Southern and Western Cities	New York City	Kansas City		
1934—January	2.81	4.17	4.74	2	3½	.50	1.38
February	2.62	3.98	4.60	(2) 1½	(9) 3	.50	1.38
March	2.61	3.94	4.65	1½	3	.38	1.13
April	2.50	3.97	4.60	1½	3	.19	1.13
May	2.55	3.68	4.46	1½	3	.19	1.00
June	2.34	3.59	4.24	1½	3	.19	.88
July	2.33	3.55	4.25	1½	3	.19	.88
August	2.42	3.53	4.00	1½	3	.19	.88
September	2.32	3.56	4.10	1½	3	.19	.88
October	2.36	3.56	4.12	1½	3	.16	.88
November	2.32	3.48	4.01	1½	3	.13	.88
December	2.27	3.45	4.03	1½	(21) 2½	.13	.88
1935—January	1.79	3.57	4.12	1½	2½	.13	.88
February	1.81	3.55	3.92	1½	2½	.13	.75
March	1.81	3.57	3.94	1½	2½	.13	.75
April	1.74	3.53	3.85	1½	2½	.13	.75
May	1.81	3.41	3.94	1½	(10) 2	.13	.75
June	1.79	3.34	3.80	1½	2	.13	.75
July	1.74	3.46	3.65	1½	2	.13	.75
August	1.76	3.26	3.67	1½	2	.13	.75
September	1.66	3.29	3.53	1½	2	.13	.75
October	1.73	3.32	3.57	1½	2	.13	.75
November	1.73	3.16	3.52	1½	2	.13	.75
December	1.78	3.22	3.65	1½	2	.13	.75
1936—January	1.71	3.12	3.50	1½	2	.13	.75
February	1.71	3.16	3.56	1½	2	.13	.75
March	1.74	3.14	3.55	1½	2	.13	.75
April	1.71	2.96	3.46	1½	2	.13	.75
May	1.71	2.99	3.43	1½	2	.13	.75
June	1.71	3.02	3.51	1½	2	.13	.75
July	1.67	3.09	3.45	1½	2	.16	.75
August	1.74	3.02	3.29	1½	2	.19	.75
September	1.70	2.97	3.33	1½	2	.19	.75
October	1.70	3.07	3.25	1½	2	.19	.75
November	1.74	3.05	3.27	1½	2	.19	.75
December	1.74	2.94	3.14	1½	2	.19	.75
1937—January	1.75	2.93	3.23	1½	2	.22	.75
February	1.75	2.95	3.15	1½	2	.31	.75
March	1.75	2.87	3.17	1½	2	.44	.88
April	1.75	2.93	3.28	1½	2	.56	1.00
May	1.73	3.01	3.25	1½	2	.53	1.00
June	1.73	2.79	3.29	1½	2	.47	1.00
July	1.73	2.82	3.27	1½	2	.44	1.00
August	1.73	2.76	3.26	(27) 1	2	.44	1.00
September	1.65	2.83	3.30	1	(3) 1½	.44	1.00
October	1.73	2.93	3.28	1	1½	.44	1.00
November	1.70	2.98	3.26	1	1½	.44	1.00
December	1.70	2.72	3.23	1	1½	.44	1.00
1938—January	1.70	2.92	3.28	1	1½	.44	1.00
February	1.70	2.65	3.21	1	1½	.44	1.00
March	1.65	2.64	3.28	1	1½	.44	.88
April	1.70	2.60	3.25	1	1½	.44	.88
May	1.70	2.64	3.20	1	1½	.44	.88
June	1.70	2.78	3.31	1	1½	.44	.88
July	1.70	2.78	3.35	1	1½	.44	.75
August	1.67	2.71	3.28	1	1½	.44	.75
September	1.70	2.74	3.26	1	1½	.44	.69
October	1.70	2.90	3.21	1	1½	.44	.69
November	1.70	2.68	3.20	1	1½	.44	.69
December	1.70	2.95	3.23	1	1½	.44	.63

For footnotes, see p. 458.

32. Money Rates, 1919–1939—*Continued*

(Per cent per annum)

Year and Month	Rates Charged Customers by Banks[a]			Federal Reserve Bank Discount Rate[b]		New York Rate on Open-Market Prime Bankers' Acceptances, 90-Day[c]	New York Rate on Open-Market Prime Commercial Paper, 4–6 Months[c]
	In New York City	In Northern and Eastern Cities	In Southern and Western Cities	New York City	Kansas City		
1939—January	1.73	2.97	3.32	1	1½	.44	.56
February	1.70	2.69	3.26	1	1½	.44	.56
March[d]	2.13	3.05	3.77	1	1½	.44	.56
April				1	1½	.44	.56
May				1	1½	.44	.56
June	2.15	3.05	3.62	1	1½	.44	.56
July				1	1½	.44	.56
August				1	1½	.44	.56
September	2.04	2.78	3.31	1	1½	.44	.69
October				1	1½	.44	.69
November				1	1½	.44	.63
December	1.96	2.59	3.32	1	1½	.44	.56
1940—January				1	1½	.44	.56
February				1	1½	.44	.56
March	2.03	2.67	3.35	1	1½	.44	.56
April				1	1½	.44	.56
May				1	1½	.44	.56
June	2.00	2.49	3.38	1	1½	.44	.56

[a] Data compiled by the Board of Governors and published in its annual reports and in current issues of the *Federal Reserve Bulletin*. Figures from 1919 to 1928 are averages of prevailing rates reported monthly by banks in 36 cities (New York City, 8 other Northern and Eastern cities, and 27 Southern and Western cities) on commercial paper eligible for rediscount at Reserve banks and demand and time loans on securities; from 1928 to February 1939, averages of prevailing rates reported monthly by banks in 19 cities (New York City, 7 other Northern and Eastern cities, and 11 Southern and Western cities) on commercial paper eligible for rediscount at the Reserve banks; from March 1939 to date, quarterly averages for the first half of March, June, September, and December of rates charged by banks in 19 cities on new commercial and industrial loans. For a description of the series see *Federal Reserve Bulletin* for November 1939, pp. 963–69.

[b] Data for 1919–1921 represent rates on rediscounts of commercial and agricultural paper maturing within 15 days, as published by the Federal Reserve Board in 1922 in the pamphlet *Discount Rates of the Federal Reserve Banks, 1914–1921*; for 1922–1939 the rates apply to commercial and agricultural paper of all maturities and were compiled from the Board's annual reports and current issues of the *Federal Reserve Bulletin*. The figures in parentheses represent the day of the month on which the change of rate became effective.

[c] Data compiled by the Board of Governors and published in its annual reports and in current issues of the *Federal Reserve Bulletin*. Figures are monthly averages of prevailing rates.

[d] Change in series; see note a above.

APPENDICES

BANKING REGULATIONS ISSUED BY FEDERAL SUPERVISORY OR QUASI-SUPERVISORY AGENCIES

(Only regulations which related to commercial banking as of December 31, 1940, are indicated below. The term "regulations" is here used in its strict sense as meaning the more or less formalized supplements to a statute which are issued by an administrative agency pursuant to specific authorization in the statute. All agencies from time to time necessarily issue various interpretations and rulings with respect to the statutes they administer. Such interpretations and rulings are very similar to regulations and often fully as important.)

Board of Governors of the Federal Reserve System

Regulation A—Discounts for and Advances to Member Banks by Federal Reserve Banks (as revised effective October 1, 1937).[1]

Regulation C—Acceptance by Member Banks of Drafts and Bills of Exchange (as reprinted May 15, 1930).

Regulation D—Reserves of Member Banks (as revised effective January 1, 1936).

Supplement to Regulation D—Reserves Required to be Maintained by Member Banks with Federal Reserve Banks (effective April 16, 1938).

Regulation F—Trust Powers of National Banks (as amended effective June 1, 1940).

Regulation G—Collection of Noncash Items (effective February 1, 1940).[1]

Regulation H—Membership of State Banking Institutions in the Federal Reserve System (as amended effective November 20, 1939).

Regulation I—Increase or Decrease of Capital Stock of Federal Reserve Banks and Cancellation of Old and Issue of New Stock Certificates (as revised effective January 1, 1936).

Regulation J—Check Clearing and Collection (as amended effective September 1, 1939).[1]

Regulation L—Interlocking Bank Directorates under the Clayton Act (as amended effective February 1, 1940).

Regulation M—Foreign Branches of National Banks and of Corporations Organized under the Provisions of Section 25(a) of the Federal Reserve Act (effective August 14, 1937).

[1] Does not regulate commercial banks in the sense of imposing any direct requirements upon them. However, it is important to banks because it states the conditions under which certain facilities of the Federal Reserve Banks are made available to them.

Regulation O—Loans to Executive Officers of Member Banks (as amended effective July 1, 1939).

Regulation P—Holding Company Affiliates—Voting Permits (as revised effective January 1, 1936).

Regulation Q—Payment of Interest on Deposits (as amended effective February 11, 1937).

Supplement to Regulation Q—Maximum Rates of Interest Payable on Time and Savings Deposits by Member Banks of the Federal Reserve System (effective January 1, 1936).

Regulation R—Relationships with Dealers in Securities under Section 32 of the Banking Act of 1933 (as revised effective January 4, 1936).

Regulation T—Extension and Maintenance of Credit by Brokers, Dealers, and Members of National Securities Exchanges (as amended to May 22, 1939).

Supplement to Regulation T (effective January 1, 1938). This supplement specifies the maximum loan values for long positions and the margin requirements for short sales.

This regulation applies to banks only under the provisions of its Section 5 which, among other things, prescribes the form of agreement to be filed by nonmember banks which wish to qualify to make certain loans to brokers.

Regulation U—Loans by Banks for the Purpose of Purchasing or Carrying Stocks Registered on a National Securities Exchange (as amended to September 1, 1937).

Supplement to Regulation U (effective November 1, 1937). This supplement specifies the maximum loan values.

Comptroller of the Currency

(The following are the only "regulations," in the strict sense of the term, issued by the Comptroller of the Currency. As previously indicated, however, he necessarily issues various interpretations and rulings with respect to statutory provisions which he administers.)

Investment Securities Regulation, promulgated June 27, 1938.

Regulation for National Banks Acting as Insurance Agents and as Brokers or Agents in Making or Procuring Loans on Real Estate, promulgated December 1, 1916.

Federal Deposit Insurance Corporation

(References are to regulations as published in the Code of Federal Regulations, Title 12.)

Part 301—Bank Obligations Prescribed as Deposits.

Part 302—Assessments.

Part 303—Advertisement of Membership.

Part 304—Payment of Deposits and Interest Thereon by Insured Nonmember Banks.
Part 305—Recognition of Deposit Ownership Not on Bank Records.
Part 307—Insurance of Trust Funds.

Presidential Proclamations and Executive Orders Connected with 1933 Bank Holiday

Under Presidential proclamations and executive orders which were issued in connection with the 1933 bank holiday, and which are still in effect, each member bank of the Federal Reserve System must have a license to operate issued by the Secretary of the Treasury, and all banks, whether or not member banks, are forbidden to pay out currency for hoarding.

Bureau of Internal Revenue

Regulations 103

Sec. 19.169-1—Common Trust Fund of Banks Defined.
Sec. 19.169-2—Income of Participants in Common Trust Fund.
Sec. 19.169-3—Computation of Common Trust Fund Income.
Sec. 19.169-4—Admission and Withdrawal of Participants from the Common Trust Fund.
Sec. 19.169-5—Returns of Common Trust Funds.

Securities and Exchange Commission

General Rules and Regulations under the Public Utility Holding Company Act of 1935

Rule U-3A3-1—Exemption of Certain Banks as Holding Companies.
Rule U-9A2-1—Exemption of Certain Banks as Affiliates.
Rule U-17C-1, U-17C-2, U-17C-3—Exemptions from the Act for Officers and Directors of Operating and Nonoperating Companies (affecting such persons as may be connected with banks).

REGULAR REPORTS TO SUPERVISORY AUTHORITIES BY SPECIFIED KINDS OF BANKS

COMPTROLLER OF THE CURRENCY

by

NATIONAL BANKS

1. Report of Condition (Form 2130). *Together with*

2. Schedule O—Loans and Advances to Affiliates and Investments in and Loans Secured by Obligations of Affiliates, if bank has one or more affiliates (Form 2131).

3. Report of Affiliate or Holding Company Affiliate, unless waived by Comptroller of the Currency (Form 2130-E).

These three reports are required by law at least three times a year; in practice, usually four times a year. Copies are sent to Reserve Bank of district.

4. Branch Bank Report of Condition (Form 2130-B). Submitted annually.

5. Trust Department Balance Sheet, if reporting bank has trust department (Form 2130-D). Submitted annually.

6. Report of Earnings and Dividends (Form 2129). Submitted semi-annually; copy sent to Reserve Bank of district.

7 a. Notification of Dividend Declared (Form 2133). Submitted whenever a dividend is declared. *Or*

b. Notification of Dividend Declared and/or Preferred Stock to be Retired (Form 2133-A). Submitted whenever a dividend is declared, and to indicate intention to make each retirement of preferred stock.

8. List of Directors (Form 1963). Submitted annually.

9. List of Shareholders (Form 1911). Submitted annually.

FEDERAL RESERVE BANKS

by

ALL MEMBER BANKS, NATIONAL AND STATE

1. Report of Deposits for Reserve Computation Purposes. Submitted semi-weekly by banks in Federal Reserve Bank and branch cities; weekly by banks in other reserve cities; semi-monthly by country banks.

FEDERAL RESERVE BANKS—*Continued*

by

REPORTING MEMBER BANKS, NATIONAL AND STATE

2. Weekly Condition Report—About 400 Member Banks in 101 Leading Cities (Form F.R. 416). Submitted weekly.

by

STATE MEMBER BANKS

(In addition to reports required of all member banks)

3. Report of Condition (Form F.R. 105). *Together with*

4. Schedule O—Loans and Advances to Affiliates and Investments in and Loans Secured by Obligations of Affiliates, if bank has one or more affiliates (Form F.R. 105b).

5. Report of Affiliate or Holding Company Affiliate, unless waived by Board of Governors (Form F.R. 220).

These three reports are required by law at least three times a year; in practice, usually four times a year.

6. Branch Bank Report of Condition (Form F.R. 105h). Submitted annually.

7. Report of Earnings and Dividends (Form F.R. 107). Submitted semi-annually.

Items 3–7, inclusive, are filed in duplicate with Reserve Bank of district, which sends one set to Board of Governors.

by

REPORTING MEMBER AND NONMEMBER BANKS IN CLEARING-HOUSE CITIES

(Some cities without clearing houses included)

8. Bank Debits to Individual Accounts (reported weekly by approximately 1,350 banks).

FEDERAL DEPOSIT INSURANCE CORPORATION

by

INSURED NONMEMBER BANKS

1. Report of Condition (Form 64). Submitted semi-annually.

2. Annual Report of Earnings and Dividends (Form 73). Submitted annually.

3. Location of Offices (Form S-14; report of titles, locations, and deposits). Submitted annually.

by

ALL INSURED BANKS

4. Certified Statement (of deposits). (Part One—Form 545, Part Two—Form 555). Submitted semi-annually.

RECONSTRUCTION FINANCE CORPORATION

by

BANKS IN WHICH R.F.C. HAS CAPITAL INVESTMENT

Report of Earnings and Dividends (R.F.C. Form L-157). Submitted semi-annually.

STATE SUPERVISORY AUTHORITIES

by

STATE BANKS

Generally, State banks submit reports of condition and of earnings and expenses to the appropriate State supervisory authorities. Frequency of submission of these reports, as well as requirements for the submission of additional reports, varies from State to State.

BOARD OF GOVERNORS AND STAFF; ADMINISTRATIVE DIVISIONS AND THEIR FUNCTIONS

(As of December 31, 1940)

Marriner S. Eccles, Chairman
Ronald Ransom, Vice Chairman
M. S. Szymczak
John K. McKee
Chester C. Davis
Ernest G. Draper

Lawrence Clayton, Assistant to the Chairman
Elliott Thurston, Special Assistant to the Chairman
Chester Morrill, Secretary
    Liston P. Bethea, Assistant Secretary
    S. R. Carpenter, Assistant Secretary
    Fred A. Nelson, Assistant Secretary
Walter Wyatt, General Counsel
    J. P. Dreibelbis, Assistant General Counsel
    George B. Vest, Assistant General Counsel
    B. Magruder Wingfield, Assistant General Counsel
E. A. Goldenweiser, Director, Division of Research and Statistics
    Woodlief Thomas, Assistant Director, Division of Research and Statistics
Leo H. Paulger, Chief, Division of Examinations
    R. F. Leonard, Assistant Chief, Division of Examinations
    C. E. Cagle, Assistant Chief, Division of Examinations
Edward L. Smead, Chief, Division of Bank Operations
    J. R. Van Fossen, Assistant Chief, Division of Bank Operations
    J. E. Horbett, Assistant Chief, Division of Bank Operations
Carl E. Parry, Chief, Division of Security Loans
    Philip E. Bradley, Assistant Chief, Division of Security Loans
O. E. Foulk, Fiscal Agent
    Josephine E. Lally, Deputy Fiscal Agent

Secretary and Office of the Secretary. Secretary: Performs such duties as may be assigned to him by the Chairman or by the Board. Serves as chief administrative officer of the Board in its relations with the divisions of its staff and with the Federal Reserve Banks. Exercises general supervision over activities of the Secretary's office. *Office of the Secretary:* Conducts official correspondence of the Board. Prepares minutes covering the proceedings of the Board and a record of actions taken by the Board and the Federal Open Market Committee on matters of policy. Administers matters relating to the Board's personnel and payroll, supplies and equipment, telephone and telegraph, purchasing, accounting, budget, mail, duplicating, filing, and messenger service, as well as the operation and maintenance of the Board's building and grounds. Conducts administrative audit of vouchers covering expenditures by the Board. Handles distribution of *Federal Reserve Bulletin* and other publications of the Board.

Office of General Counsel. Advises the Board regarding legal questions arising in the conduct of its business and passes upon legal aspects of matters coming before the Board. Prepares communications involving legal questions, and opinions and other legal papers, including regulations, amendments thereto, and interpretations thereof. Prepares proposed amendments to the law; analyzes and reports to Board on pending legislation on banking and related subjects; and prepares compilations of laws relating to the Federal Reserve System and digests of State laws on certain banking subjects. Prepares reports on applications for interlocking directorates between banks under Clayton Antitrust Act; passes upon legal aspects of applications of national banks for trust powers and of State banks for membership in the Federal Reserve System; and passes upon legal aspects of organization of corporations under Federal law to engage in international or foreign banking. Collects and disseminates among counsel for Federal Reserve Banks information regarding litigation of general interest involving Federal Reserve Banks and consults with and renders assistance to Federal Reserve Bank counsel in more important litigation.

Division of Research and Statistics. Keeps Board informed of developments in industry, commerce, agriculture, and finance that have a bearing on formulation of credit policy. Exercises supervision over similar work at the twelve Federal Reserve Banks. Prepares statistics and charts and currently interprets developments in production and distribution of commodities, employment, payrolls, and the course of prices, as well as in banking, capital markets, international trade, and the foreign exchanges. Makes special studies of fiscal and other economic problems from the monetary point of view. Also keeps the Board advised of principal financial and economic developments abroad. Has major responsibility for content of *Federal Reserve Bulletin* and for preparation of the Board's annual reports, and has supervision over monthly reviews of the twelve Federal Reserve Banks. Has charge of the Board's general library.

Division of Examinations. Examines Federal Reserve Banks, corporations (foreign banking) organized under Section 25(a) of Federal Reserve Act, and, when directed by the Board, corporations operating under agreements with the Board made in accordance with Section 25 of the act. Analyzes, and prepares reports with recommendations to the Board on, applications and data regarding (1) State banks for membership in the Federal Reserve System, (2) holding company affiliates for voting permits, (3) national banks for trust powers, (4) consolidations, mergers, etc., involving State member banks. Reviews reports of examination of State member banks. Reviews and follows the examination and supervisory activities of the Federal Reserve Banks with a view to furthering coordination of policies and practices under the general policies of the Board. Reviews the activities of the auditing departments of the Reserve banks. Prepares and reviews communications regarding such matters.

Division of Bank Operations. Handles matters coming before the Board relating to the condition, operation, and personnel of the Federal Reserve Banks. Operates Interdistrict Settlement Fund and maintains books and records thereof. Prepares production schedules for printing Federal Reserve notes, and supervises distribution of other currency among the Federal Reserve Banks. Prepares for publication the weekly condition statements of the Federal Reserve Banks and of about 400 reporting member banks in leading cities, the weekly statement of debits to individual accounts by banks in about 270 leading cities, the quarterly member bank call report, and banking statistics published in the *Federal Reserve Bulletin* and the Board's annual reports. Obtains, examines, and tabulates reports of Federal Reserve Banks relating to their personnel, earnings, expenses, condition and operations, and of member banks relating to their condition, earnings and expenses. Maintains a record of all banks and branches in the United States and of changes in the status thereof, and compiles data with respect to the organization, consolidation, suspension and liquidation of member and nonmember banks, bank branches, affiliates, etc. Compiles statistics of money in circulation, including data on kinds and denominations thereof. Answers inquiries received through Reserve Banks relating to financing and other problems connected with Defense contracts, replies being based largely on information obtained from the War and Navy departments. Serves as liaison between Defense Contract officers at Reserve Banks and representatives of the Defense agencies in Washington.

Division of Security Loans. Carries on activities arising from certain provisions of the Securities Exchange Act of 1934 which authorizes the Board to regulate, by fixing margin requirements and otherwise, the amount of credit that may be extended and maintained by brokers, banks, and others for the purpose of purchasing or carrying securities.

Office of the Fiscal Agent. Collects and deposits all moneys and funds receivable by the Board and makes payment of expenses and other disbursements of Board. Maintains records of Board's cash receipts and disbursements and certain subsidiary general ledger accounts.

REGULATIONS OF THE BOARD OF GOVERNORS

(As of December 31, 1940)

(Dates following each regulation show (1) year of issue, sometimes with a different title, and (2) year of the latest amendment.)

Regulation A—Discounts for and Advances to Member Banks by Federal Reserve Banks. (1) 1914; (2) 1937.

Regulation B—Open Market Purchases of Bills of Exchange, Trade Acceptances, and Bankers' Acceptances under Section 14. (1) 1915; (2) 1923.

Regulation C—Acceptance by Member Banks of Drafts and Bills of Exchange. (1) 1915; (2) 1923.

Regulation D—Reserves of Member Banks. (1) 1914; (2) 1936.

Regulation E—Purchase of Warrants. (1) 1915; (2) 1923.

Regulation F—Trust Powers of National Banks. (1) 1915; (2) 1940.

Regulation G—Collection of Noncash Items. (1) 1940; no amendments.

Regulation H—Membership of State Banking Institutions in the Federal Reserve System. (1) 1914–15; (2) 1939.

Regulation I—Increase or Decrease of Capital Stock of Federal Reserve Banks and Cancellation of Old and Issue of New Stock Certificates. (1) 1914–15; (2) 1936.

Regulation J—Check Clearing and Collection. (1) 1915–16; (2) 1939.

Regulation K—Banking Corporations Authorized to Do Foreign Banking Business under the Terms of Section 25(a) of the Federal Reserve Act. (1) 1920; (2) 1937.

Regulation L—Interlocking Bank Directorates under the Clayton Act. (1) 1916; (2) 1940.

Regulation M—Foreign Branches of National Banks and of Corporations Organized under the Provisions of Section 25(a) of the Federal Reserve Act. (1) 1937; no amendments.

Regulation N—Relations with Foreign Banks and Bankers. (1) 1933; no amendments.

Regulation O—Loans to Executive Officers of Member Banks. (1) 1936; (2) 1939.

Regulation P—Holding Company Affiliates—Voting Permits. (1) 1933; (2) 1936.

Regulation Q—Payment of Interest on Deposits. (1) 1933; (2) 1937.

Regulation R—Relationships with Dealers in Securities under Section 32 of the Banking Act of 1933. (1) 1933; (2) 1936.

Regulation S—Discounts, Purchases, Loans, and Commitments by Federal Reserve Banks to Provide Working Capital for Established Industrial or Commercial Businesses. (1) 1934; no amendments.

Regulation T—Extension and Maintenance of Credit by Brokers, Dealers, and Members of National Securities Exchanges. (1) 1934; (2) 1939.

Regulation U—Loans by Banks for the Purpose of Purchasing or Carrying Stocks Registered on a National Securities Exchange. (1) 1936; (2) 1937.

DEVELOPMENT OF STATISTICAL SERIES

The work of the Board of Governors in developing and presenting economic data to serve as a factual basis for policy making is illustrated by the history of the two important statistical series presented below. Adjustment to changing economic conditions and utilization of improved methods and data are basic considerations in the preparation of all series issued by the Board, but the procedure followed differs in accordance with developments affecting specific series.

MEMBER BANK RESERVES AND RELATED ITEMS

Origin of the Basic Analysis (Prior to 1925). The basic analysis, illustrated by reference to the major factors (demand for currency; gold movements) in the changes in the volume of Reserve Bank credit outstanding (called at that time "Earning assets of the Reserve banks"), appeared as early as 1923—in the *Federal Reserve Bulletin* (see issues for February, page 146, and April, page 540) and, more succinctly, in the 1923 *Annual Report of the Federal Reserve Board* (see chart on page 24). The same treatment, further elaborated, appeared in (1) the *Bulletin* for 1924 (see issues for April, page 248, and July, pages 529–530 and 571) and the 1924 *Annual Report* (see pages 3–8); (2) the *Bulletin* for 1925 (see issue for July, page 482, where three separate charts that appear together show for the period 1919–1925 Reserve bank credit, money in circulation, and gold movements) and the 1925 *Annual Report* (see chart on page 19 which shows, on single chart, Reserve Bank credit and money in circulation); and (3) book by E. A. Goldenweiser published by McGraw-Hill Book Company, Inc., in 1925, *Federal Reserve System in Operation* (see pages 66–72).

Developing for Major Items Satisfactory Statistical Series Covering a Period of Years and Perfecting the Analysis on a Balance-sheet Basis (1926–1928). For the major items, *monthly averages* of daily (or other) figures, more representative than figures for single dates, were developed over a period of time and presented in the *Bulletin* for 1926 (see January issue, table on page 30; July issue, chart on page 463 and table on page 506), the 1926 *Annual Report* (see Tables 105–106 for monthly averages back through 1922), and the 1927 *Annual Report* (see Tables 1, 17, and 21, for monthly averages back through 1914). The analysis was expounded, with special reference to the relation between currency and Reserve Bank credit, in the *Bulletin* for July 1926, in an article (pages 467–478) entitled "Currency under the Federal Reserve System." In the *Bulletin* for September 1927, the analysis was extended to include—in addition to the major items (Reserve Bank credit, gold stock, money in circulation, member bank reserve

balances)—all the other items (minor items), and was published, with full explanation, with all the figures necessary to presentation of the completed analysis on a balanced basis. The 1927 *Annual Report* (pages 17–20) included the analysis in a form that is both complete and balancing—for the period from December 1926 through December 1927 and for the longer period covering the life of the System (1914–1927). The analysis was used in a book by Winfield W. Riefler dated September 1929 and published by Harper & Brothers in 1930, *Money Rates and Money Markets in the United States*, and a description of the methods used in deriving the figures was published (for the first time in complete detail) in an appendix of that book (pages 237–259).

Devising Acceptable Methods of Graphic Presentation (1926–1936). Graphic presentation of the analysis, by means of a chart on which the major items are plotted on a uniform scale, went through about four stages: (1) a chart with four curves, one of them showing (as a rule) Reserve Bank credit and gold stock combined, with scales staggered so as to bring related curves close together was used from time to time in the *Bulletin* during 1926, 1927, and most of 1928; (2) a simplified chart, standardized late in 1928, which used a single scale and was entitled "Reserve Bank Credit Outstanding and Principal Factors in Changes," was published continuously in the *Bulletin* from December 1928 through February 1934; (3) a chart, substantially the same except for a change of title to "Reserve Bank Credit and Related Items" and the inclusion of an additional curve for "Treasury Cash and Deposits with Federal Reserve Banks," was published in the *Bulletin* from March 1934 through March 1936; (4) beginning with April 1936, the chart has been called "Member Bank Reserves and Related Items" and has been accompanied by another, in effect a lower panel of the same chart, showing "Required Reserves" and "Excess Reserves."

Since the summer of 1931, the standard chart has been one of the charts included, whenever it has special significance, in the "National Summary of Business Conditions" that is prepared by the Board and published in the monthly reviews of the twelve Federal Reserve Banks.

Regular Weekly Publication. In May 1930 the Board inaugurated regular weekly publication of the figures, in summary form and on a balancing basis, on the first page of the Board's "Weekly Condition Statement of the Federal Reserve Banks" and the Board has continued this practice ever since. The figures were described and the analysis explained in a statement for the press attached to the weekly condition statement for May 28, 1930, and published in the *Federal Reserve Bulletin* for June 1930, with reference back to an earlier description in detail that appeared in the *Bulletin* for July 1929 (when the current publication of the complete balancing analysis, on a monthly basis, was inaugurated).

INDEX OF INDUSTRIAL PRODUCTION

(References are to *Federal Reserve Bulletin*)

1922, December, pages 1414–1421. Article entitled "Index of Production in Basic Industries" presents index and describes it. Index, base 1919 = 100, adjusted for seasonal variation, covers by months period January 1913–October 1922. Combination of 22 individual series. Part of introduction is as follows: "Accurate and current information concerning the trend of production is fundamental to an interpretation of business conditions and to the shaping of business policy. Such information, in order to have practical value, must be as nearly current as possible, and it is with special reference to this need that the construction of a new monthly index of production in the United States, described in this article, was undertaken."

Note. The "Index of Production in Basic Industries," introduced in December 1922, is not to be confused with certain "indexes of domestic business" (three indexes: agricultural movements, mineral products, production of manufactured goods, not adjusted for seasonal variation, that were introduced in March 1922, and published currently in the *Bulletin*—together with the "Index of Production in Basic Industries"—until February 1927, when the Board's "Index of Industrial Production" was introduced).

1927, February, pages 100–103; March, pages 170–177. Article in February entitled "A New Index of Industrial Production" introduces the new index and gives a general description of it; article in March entitled "The New Index of Industrial Production" gives a technical description. This index, base 1923–25 = 100, adjusted for seasonal variation, covered the period 1919–1926, and comprised two component indexes, one of manufactures and the other of minerals. Selected extracts from the two articles cited: "For the past four years the Federal Reserve Board has compiled and published currently an index of production in basic industries, which has served as an approximate measure of changes in the volume of the country's industrial and mineral output. The growth in recent years in the amount of information currently collected by various agencies and in the promptness with which it becomes available has made it possible for the Board to construct at this time a more comprehensive index, which will be called an index of industrial production. The new index, which is presented in detail for the first time in this article, is broader in scope than the index of production in basic industries, which it supersedes, and the methods of its construction have been improved in many respects on the basis of experience."

"The index of industrial production is made up of two component indexes, one of manufactures and the other of minerals, and represents directly and indirectly nearly 80 per cent of the total industrial production of the United States. The greater comprehensiveness of the new index of industrial production, as compared with the old index of production in basic industries, is indicated by the fact that it is derived from 60 individual series, measuring production in

about 35 industries, and indirectly representing production in many more, while the old index included 22 series, measuring production in about 20 industries. The principal additional industries included in the new index are motor vehicles, petroleum products, rubber tires, plate glass, and boots and shoes. The importance of these industries, with the exception of boots and shoes, has grown in recent years, and this has made their inclusion in a current index of production increasingly desirable."

"The principal characteristics of the new index, as described in some detail in this article, may be summarized as follows:

(1) Employment of primary data, of considerable variety, all of which provide current indications of the volume of production of principal industries, expressed in physical quantity units.

(2) A base period (1923–1925 = 100) that is recent and broad.

(3) Adjustment of primary data, reported for the calendar month, for changes from month to month in the number of working days.

(4) Computation of the index by the so-called aggregative method, which is considered to be more accurate than other methods and has certain other technical advantages.

(5) Assignment to series for given industries of such weights as enable these series to have an influence on the index in proportion to the importance not only of the industries directly represented, but also of certain related industries for which satisfactory series are not currently available.

(6) Combination of indexes computed by different sets of weights, derived from available primary data for different years, in such a way as to allow, so far as possible, for changes during recent years in the importance of different industries relative to one another.

(7) Adjustments for usual seasonal variations by the use of data for a period that extends to the end of 1926 and by methods that have been developed during recent years."

1932, March, pages 194–196. Note describes revisions completed in February 1932, for period 1923–1931. Revisions were made in seasonal indexes for 20 series, including steel ingots, cotton consumption, pneumatic tires, etc. In addition, certain series formerly included in the index for a part of the period—including oak flooring and face brick—were excluded for the entire period, and necessary adjustments in the base were made. There were also minor revisions and corrections in certain basic data.

1933–1939 revisions. Other revisions are described in the following issues of the *Bulletin:* 1933, September, page 585; 1936, November, page 911; 1937, March, page 256; 1938, October, page 912; 1939, January, pages 20–21. Series of which, at the end of 1939, separate publication was being withheld pending revision, included shipbuilding, silk-loom activity, production of book paper, wrapping paper, fine paper, boxboard mechanical wood pulp, chemical wood pulp, paper boxes, lumber.

1940, August, pages 753–771 and 825–882; September, pages 912–924. Article

in August entitled "New Federal Reserve Index of Industrial Production" describes a major revision, the purpose of which was to provide a broader and more accurate measure of current changes in the physical volume of industrial output; article in September entitled "Measurement of Production" discusses some of the theoretical and practical problems involved in attempting to measure the course of production.

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