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FEDERAL RESERVE BANK OF RICHMOND ANNUAL REPORT

50th Anniversary



1914 - 1964

50th Anniversary



1914 - 1964

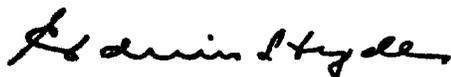
TO OUR MEMBER BANKS:

We are pleased to present the Annual Report of the Federal Reserve Bank of Richmond for the Fiftieth Anniversary year 1964. This year's Report features a study of the United States' monetary and banking system during the years immediately prior to the establishment of the Federal Reserve System in 1914, the interim years, and the present.

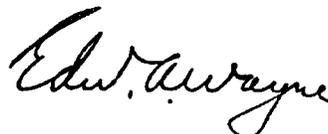
Also included in the Report are comparative financial statements, a brief summary of significant events of the past year, including the volume of our operations; and a current list of officers and directors of our Richmond, Baltimore, and Charlotte offices.

On behalf of our directors and staff, we wish to express our appreciation to you for the splendid cooperation and support you have extended to us throughout the past year.

Sincerely yours,



Chairman of the Board.



President.

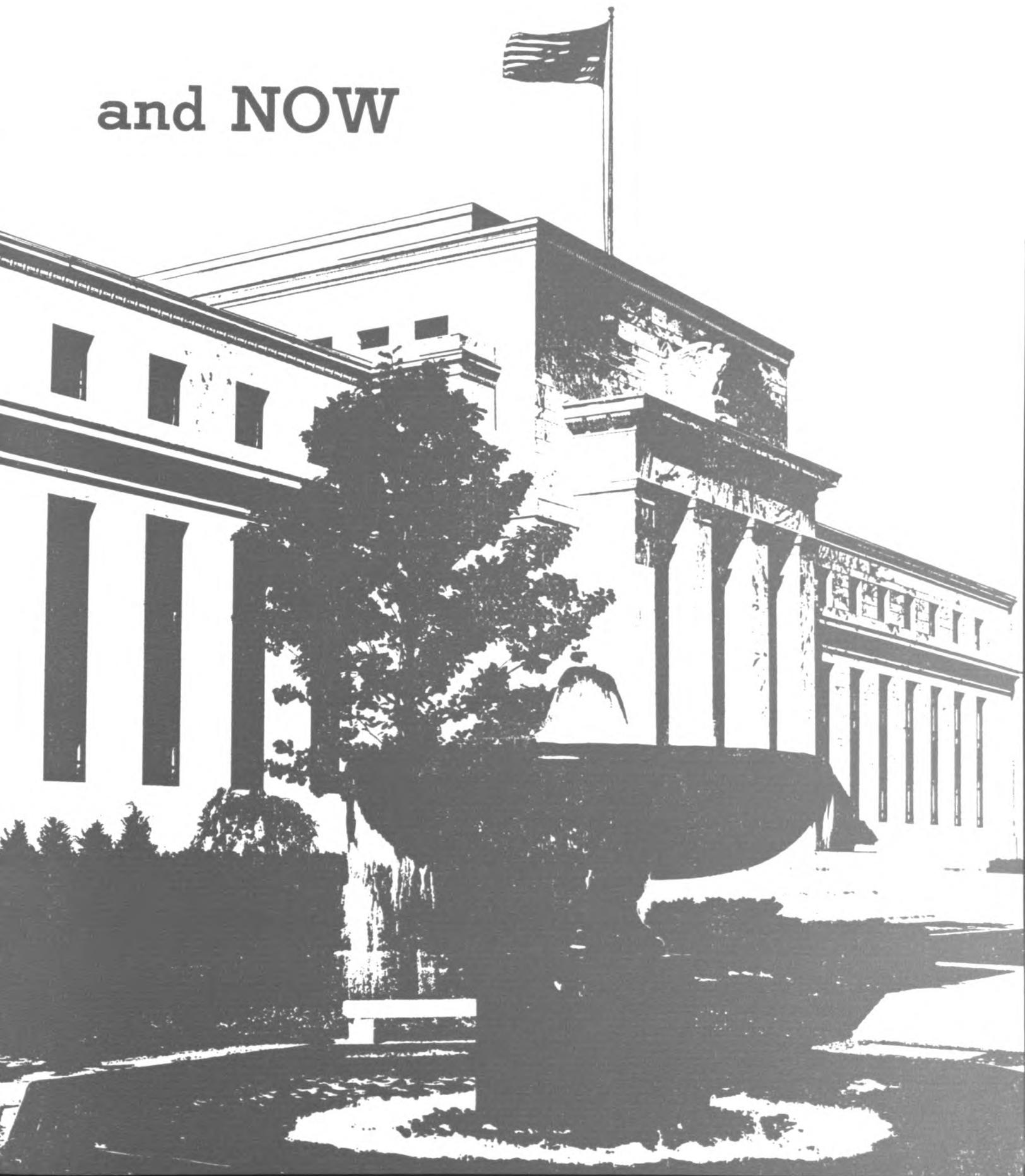
BANKING

THEN

The twelve Federal Reserve Banks opened for business on November 16, 1914. Now, a half century later, both the financial environment in which they function and the banking system through which they serve the public are vastly different from those which prevailed on opening day. Perhaps this is an appropriate time to note the sweeping changes which have occurred, and to see how they have changed the organization, the work, and the techniques of the Federal Reserve System.

Ideally, that could best be accomplished by writing a complete banking and financial history of the United States covering the past 50 years. But desirable as such an undertaking may be, it obviously exceeds the resources available for this report, so a much more modest alternative has been followed. The following pages attempt to present two "still" pictures—one of the banking system and the money market as they were in 1914 and the other of the same institutions in 1964. To provide some continuity, the two descriptions are linked by a check list or chronology of the more important relevant changes and developments which took place in the interim. Without such a guide it might be impossible to understand how the small, elementary, and provincial banking system of 50 years ago developed into the huge, complex, and sophisticated international financial center of today.

and NOW



THE MONETARY AND BANKING SYSTEM

1914

As a preliminary, it may be helpful to note a few features of the United States economy in 1914 as reference points. Population was not quite 100 million and gross national product was approximately \$36 billion, or about \$361 per capita. The national debt was \$1.2 billion, the interest on which amounted to \$22.9 million per year. The Federal budget was approximately in balance at \$735 million and the newly enacted income tax produced payments of \$28.3 million from individuals and \$43.1 million from corporations.

The monetary gold stock of the country was a little more than \$1.5 billion. Exports and imports of goods and services were almost in balance near \$2.4 billion, but there was a small deficit in the balance of payments because of an outflow of capital and the gold loss for the year was \$165 million. Foreign investments in this country at \$7.2 billion were almost exactly twice United States investments abroad.

THE STANDARD The United States, like most major countries of the world, was on a gold coin standard in 1914. Although a *de facto* gold standard had been in operation since 1879, the last quarter of the nineteenth century had been marked by bitter controversy between advocates of bimetallism and advocates of the gold standard. The defeat of William Jennings Bryan, who supported the silver interests, in the presidential election of 1896 and the passage of the Gold Standard Act of 1900, however, appeared to have settled the issue once and for all.

The unit of value in 1914 was the gold dollar, consisting of 25.8 grains of gold nine-tenths fine, or 23.22 grains of pure gold. This gave gold a monetary value of \$20.67 per ounce. There was free and unlimited coinage of gold, so that anyone could take gold bullion to the Mint and receive its full value in gold coins, except for minor charges. Likewise, gold coins could be melted down and converted to bullion, and gold was exported and imported without restriction. These features effectively tied the value of the dollar to the world value of gold.

THE CIRCULATION Although the gold standard prevailed, gold coins made up only a small part of the money supply. On the basis of the definition now generally accepted (i.e., demand deposits adjusted plus currency and coin outside banks), the total money supply on June 30, 1914, was about \$11.6 billion. Over \$10 billion of this was in the form of demand deposits.

Currency and coin outside the Treasury amounted to about \$3.5 billion, almost half of which was held by commercial banks. The importance of metallic money is noteworthy. The various types of coins, of which gold coins were by far the most important, accounted for about one fourth of total currency and coin (see Table I). Moreover, gold and silver certificates, which circulated in place of coins, made up another 43 per cent. The remaining third consisted of national bank notes and United States notes ("Greenbacks").

Looked at differently, gold and gold certificates made up almost half of currency and coin; silver coins and certificates about one fifth, national bank notes one fifth, and United States notes one tenth.

The Monetary System

WEAKNESSES OF THE SYSTEM In the period of extensive study and evaluation of the monetary and banking systems that culminated in the Federal Reserve Act, much criticism centered on the "inelasticity" of the currency supply. This term was used to describe the failure of the currency supply to increase in periods of trade expansion or to decrease in periods of decreased economic activity. Indeed, some critics maintained that the currency supply was negatively elastic with respect to the volume of trade.

Most of the items included in the currency supply were not directly affected by changes in the level of economic activity. Changes in gold and gold certificates were the result of our balance of payments position or domestic gold production and did not necessarily reflect changes in the level of domestic trade. The volume of United States notes outstanding was fixed by law, and changes in the silver component were unrelated to the level of economic activity. Finally, the volume of national bank notes could not grow with the population of the country nor vary with the seasonal and cyclical needs of business. As one example, national bank notes in circulation declined from \$337 million in 1880 to \$162 million in 1891.

The inelasticity (or negative elasticity) of the national bank notes was the result of the legal provisions relating to their issue. The National Bank Act of 1864 had provided that these notes could be issued only against certain kinds of United States Government bonds deposited with the Treasury, and no bank could issue notes in excess of its capital stock. Notes could be issued up to 90 per cent (later increased to 100 per cent) of the par or market value, whichever was lower, of the deposited bonds.

Thus, the volume of Government bonds having the circulation privilege set the upper limit to the note circulation of the national banks, and this limit tended to rise and fall counter to the rise and fall of business activity. In addition, the issue and retirement of national bank notes were affected by conditions in

Table 1

CURRENCY AND COIN IN CIRCULATION OUTSIDE THE TREASURY June 30, 1914	Amount (\$ millions)	Per Cent of Total
Gold Coin and Bullion	611.5	17.7
Silver Dollars	70.3	2.0
Subsidiary Silver	160.0	4.6
Minor Coins	61.9	1.8
Total Metallic	903.7	26.1
United States Notes	337.8	9.8
Treasury Notes of 1890	2.4	0.1
National Bank Notes	715.2	20.6
Total Notes	1,055.4	30.5
Gold Certificates	1,026.1	29.6
Silver Certificates	478.6	13.8
Total Certificates	1,504.8	43.4
TOTAL	3,463.9	100.0

Notes: Details will not necessarily add to the totals because of rounding.

Source: U. S. Department of Commerce, Bureau of the Census.

the bond market and these conditions also tended to cause the volume of notes to vary inversely with the needs of trade and business.

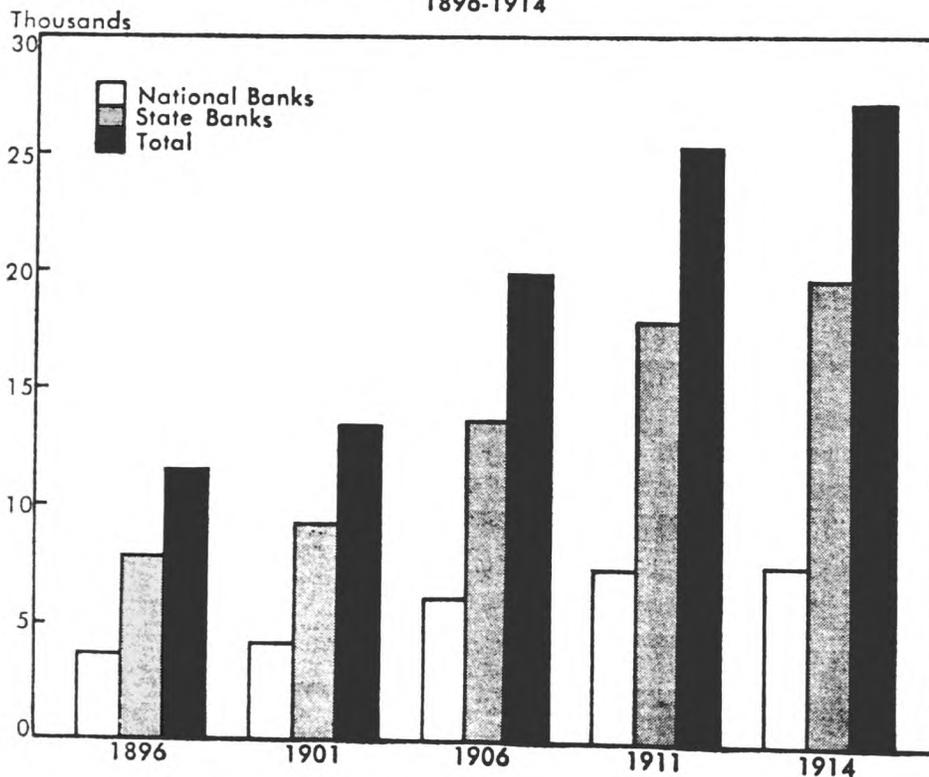
The operation of the Independent Treasury System also complicated the functioning of the currency system and tended to produce perverse effects. When Treasury receipts exceeded disbursements and the surplus was locked up in sub-treasury vaults, money in circulation was reduced. This usually happened in periods of increased business activity when there was a greater need for currency. Also, currency and coin was a major component of bank reserves, and an increase in Treasury holdings reduced the reserve base of the banking system just at the times when additional reserves were needed.

In the Aldrich-Vreeland Act of 1908, Congress attempted to deal with the problem of elasticity (at least on a temporary basis) by authorizing groups of banks to issue emergency currency secured by state and local government bonds and, later, commercial paper and certain other types of paper. In order to insure speedy retirement of such emergency issues, the banks were required to pay interest on the notes at a rate which increased each month they were outstanding. No currency was issued under this Act until the financial crisis that accompanied the outbreak of World War I. On August 31, 1914, the currency issued amounted to \$209 million and by November 30, 1914, the amount authorized totaled \$383 million.

STRUCTURE In 1914 there were about twice as many banks in the United States as there are now but their assets were only a small fraction of today's total. This meant that there were a great many very small banks. The growth in the 30 years preceding 1914 had been phenomenal, with the number of banks increasing from something less than 4,000 to more than 27,000. State banks,

The Commercial Banking System

NUMBERS OF BANKS, BY CLASS
1896-1914



which had almost disappeared in the decade after 1863, accounted for most of the increase. By 1896 they were twice as numerous as national banks, as the accompanying chart shows. From 1896 to 1914 they continued their rapid growth, rising from 7,785 to 19,718, the latter figure including 2,201 private unincorporated banks. During the same period national banks increased from 3,689 to 7,518.

Branch banking was quite limited in 1914. Although the operation of branches was not uncommon before the Civil War, public policy became committed to the unit banking system following passage of the National Bank Act. For many years this Act was interpreted so as virtually to prohibit branches for national banks, and prior to 1922 the development of branches was limited almost entirely to state banks. Occasionally a state bank was converted into a national bank and retained its branches, or was absorbed with its branches by a national bank, but growth in national bank branches from this source was slow. Thus, in 1915, only 397 banks operated branches. Of these, 335 were state banks with 759 branches, and 12 were national banks with a total of 26 branches. More than half of the branches were located in head office cities.

Although state banks greatly outnumbered national banks, the two were about equal in terms of total assets. This meant that national banks were generally much larger than state banks. They averaged just over \$1.5 million of assets per bank, compared with less than \$600 thousand for state banks.

ASSETS AND LIABILITIES Loans accounted for a larger part of total assets than they do today, with state banks holding relatively more than national banks. Complete information is not available as to the relative importance of different types of loans, but enough is available to show that national banks held almost no real estate loans, while state banks held a fourth of all their loans in this form (see Table II). Up to this time national banks could not, with very minor exceptions, make real estate loans, a restriction which apparently tended to give state banks a relative advantage in competing for loans.

Investments made up about one sixth of total assets in both state and national banks, but there were important differences in the types of securities held. National banks held large amounts of United States obligations, largely to secure public deposits and national bank notes. In contrast, state banks held only nominal amounts of United States Government securities, while other securities (mainly railroad and other corporate securities) accounted for 80 per cent of total investments.

The average commercial bank carried just under one fifth of its assets in cash and balances with other banks, but the figure was higher for national than for state banks. National banks held about 12 per cent of assets in bankers' balances, slightly over half of which represented legal reserves, and about 9 per cent in cash. Specie and United States notes, the lawful money reserves of the national banking system, totaled \$969 million, or about 95 per cent of cash holdings, about a third of which was held by banks in New York City and an additional 11 per cent in central reserve city banks in Chicago and St. Louis. The remainder was about evenly divided between reserve city and country banks. State banks held about 5 per cent of assets in cash and another 11.5 per cent in bankers' balances.

As might be expected, deposits made up by far the greatest part of the liabilities of all banks. National banks had a slightly lower proportion of deposits, mainly because of their circulating notes. Capital accounts made up about 18 per cent for both groups of banks, more than twice the prevailing figure today.

Table II

PRINCIPAL ASSETS AND LIABILITIES OF COMMERCIAL BANKS June 1914 (Amounts in millions of dollars)	All Commercial Banks		National Banks		State Banks	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Assets						
Loans, Total	13,416	57.9	6,443	56.1	6,973	59.7
Real Estate	1,812	7.8	114	1.0	1,698	14.5
Other	11,604	50.1	6,329	55.1	5,275	45.2
Investments, Total	3,861	16.7	1,870	16.3	1,991	17.0
U. S. Government	782	3.4	764	6.7	18	0.2
State and Political Subdivisions	565	2.4	176	1.5	389	3.3
Other	2,514	10.9	930	8.1	1,584	13.6
Cash, Total	4,930	21.3	2,770	24.1	2,160	18.5
Cash Items in Process of Collection	587	2.5	358	3.1	229	2.0
Currency and Coin	1,615	7.0	1,022	8.9	593	5.1
Bankers' Balances (including reserves)	2,728	11.8	1,390	12.1	1,338	11.5
Other Assets	948	4.1	394	3.4	554	4.7
TOTAL ASSETS	23,155	100.0	11,477	100.0	11,678	100.0
Liabilities and Capital Accounts						
Deposits, Total	17,806	76.9	8,560	74.6	9,246	79.2
Interbank	2,720	11.7	2,186	19.0	534	4.6
U. S. Government	66	0.3	66	0.6	----	----
Other Demand Deposits	10,306	44.5	5,107	44.5	5,199	44.5
Other Time Deposits	4,714	20.4	1,201	10.5	3,513	30.1
National Bank Notes	722	3.1	722	6.3	----	----
Other Liabilities	458	2.0	146	1.3	312	2.7
Capital Accounts	4,169	18.0	2,049	17.9	2,120	18.2
TOTAL LIABILITIES AND CAPITAL ACCOUNTS ..	23,155	100.0	11,477	100.0	11,678	100.0

Source: U. S. Department of Commerce, Bureau of the Census.

Interbank deposits made up more than one quarter of the deposits of national banks as compared with less than 6 per cent for state banks. This was a reflection of the importance of the national banks, especially those in the central money markets, as holders of legal and working reserves of other banks. Time deposits constituted a much larger share of total deposits at state banks than at national banks.

RESERVE REQUIREMENTS OF NATIONAL BANKS Prior to the establishment of the Federal Reserve System, national banks held legal reserves in the form of vault cash or deposits in correspondent banks. For purposes of legal reserve requirements, these banks were divided into three classes—country, reserve city, and central reserve city banks. In 1914, there were three central reserve cities—New York, Chicago, and St. Louis—and 49 reserve cities. Banks situated elsewhere were classified as country banks. For reserve purposes there was no distinction between demand and time deposits.

Country banks were required to keep minimum reserves equal to 15 per cent of deposits, at least two fifths of which had to be vault cash. The remainder might be deposits with banks in reserve or central reserve cities. For reserve city banks, the requirement was 25 per cent, with at least one half in vault cash, and the remainder in deposits with central reserve city banks. Central reserve

city banks were required to hold a 25 per cent reserve, all in the form of vault cash.

No national bank was required to carry any reserve with banks in reserve or central reserve cities, but almost all of them found it advantageous to do so. These were essentially working funds which banks needed to pay clearing balances against themselves and to accommodate their customers in making payments in financial and commercial centers. In addition, the competition among the money market banks resulted in the payment of interest on these balances as well as the performance of free services to correspondent banks.

PYRAMIDING OF RESERVES One result of the system of redeposited reserves was that cash reserves available in the banking system to meet the demands of depositors were considerably less than the total reserves required by law. For example, on June 30, 1914, all national banks held deposits of \$7,495 million, against which they were required to hold total reserves of \$1,505 million, or slightly over 20 per cent. In fact, however, these banks as a group held only \$969 million in specie and legal tender, or only 12.9 per cent of total deposits. Remaining reserves were held as balances due from each other, and these were of little help in meeting an increased demand for currency from the public.

The system of redeposited reserves led to a high degree of concentration of reserve balances in the three central reserve cities, especially New York. Shortly before the Federal Reserve System was established, about half of all deposits of the central reserve city banks were deposits of banks, and over half of these were owned by national banks.

The payment of interest on such deposits plus the cost of providing numerous services to correspondents made it necessary to employ the funds continuously at the best possible rates. The added requirement that the funds be available on short notice led the city banks to use them in making call loans to finance trading on the stock exchanges. Thus, a large part of the ultimate reserves of the banking system were tied up in financing speculative trading on the stock exchanges.

This system tended to bring about periods of extreme tightness or ease in the central money markets. Demand for credit in large areas of the country was dominated by the cycle of agricultural production and marketing and consequently was highly seasonal in nature. When credit demand was low in the agricultural regions, funds flowed into the central money market banks either for deposit in reserve accounts or for investment in brokers' loans or securities. The inflow of funds tended to inflate security prices and push down interest rates. When seasonal needs reversed the flow of funds, loans were called and securities were dumped on the market, severely deflating prices and raising interest rates.

During the frequent periods of financial panic these conditions were accentuated. At such times, it became impossible to recover the reserve funds by liquidating the securities in which they were invested (or practically invested through call loans) without producing such capital losses as to threaten widespread bankruptcy. In such circumstances, the banks were often forced to suspend convertibility of deposits.

RESERVE REQUIREMENTS OF STATE BANKS For the numerous state banks, legal reserve requirements varied from state to state, both as to the amount and form of reserves, and some states had no requirements at all. Unlike the National Bank Act, most of the state laws distinguished between demand and time deposits for reserve purposes. All state laws permitted at least part of the reserves

to be in the form of deposits, and some allowed designated securities to function as reserves.

Both state and national banks carried aggregate reserves greater than required by law. On June 30, 1914, national banks held vault cash equal to about 12 per cent of total deposits. Due from banks or bankers totaled just over 16 per cent, so that the two items combined amounted to about 28 per cent of total deposits.

Currency and coin held by state banks totaled \$593 million, only about 6.4 per cent of total deposits. Due from banks and bankers, however, totaled \$1,338 million, or almost 14.5 per cent of deposits. The sum of these two items was just under 21 per cent as compared with the 28 per cent for national banks.

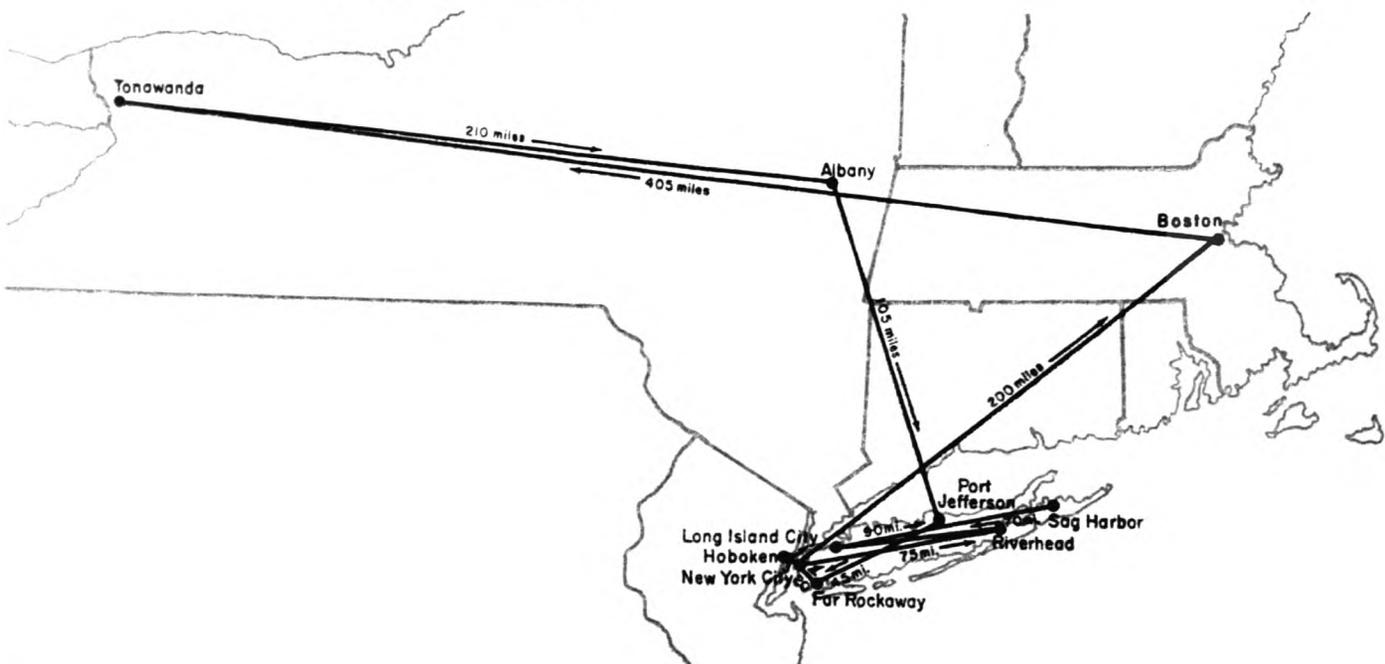
For all commercial banks, currency and coin was just over 9 per cent, and interbank deposits about 15.3 per cent of total deposits.

CHECK CLEARING The system of clearing and collecting checks in 1914 made use of an elaborate network of correspondent relationships among banks. These relationships were in part an outgrowth of the system of redeposited reserves, but they also reflected the heavy expense of shipping currency from one part of the country to another, the absence of large-scale branch banking, and the lack of a central bank clearing mechanism.

Ordinarily, a bank is required to pay in cash checks drawn against it and presented at the bank, but is not required to remit the proceeds elsewhere. A bank receiving a check through the mail can make payment by shipping currency to the sending bank or by drawing a draft on a bank located in a central money market, such as New York. Either method involves some cost and inconvenience to the remitting bank, and banks receiving checks through the mail may feel justified in deducting an amount sufficient to compensate for this additional cost and inconvenience.

There is no problem in the collection of checks drawn on local banks because they can be collected by messenger or, more commonly in the larger cities,

ROUTE OF A CHECK



through a clearing house. But such charges are a significant consideration in the collection of checks drawn on out-of-town banks, and banks generally try to avoid paying them.

The bank collecting the check pays the exchange charge, but frequently passes the charge back to the person cashing the check. In the past, the desire to avoid exchange charges led to a variety of practices related to competition for correspondent balances. Many banks located in financial centers agreed to absorb exchange charges on items sent for collection by country banks in exchange for deposit balances from these banks. Some banks that made a practice of charging exchange on checks sent to them through the mail would agree to accept checks from correspondents at par. Also, city banks would arrange to send to a country bank checks drawn on other banks in the same town for presentation over the counter of the payee bank.

All of these practices encouraged banks to route collection items in such a way as to avoid the payment of exchange charges. If a bank received a check drawn on a bank in a town in which it had no correspondent, it would probably send it to a bank in another town. Also, it might send it to a bank in a town other than that in which the drawee bank was located simply because it needed to build up its balances there.

This circuitous routing often caused checks to travel long distances and caused considerable delay in collection. One of the most frequently cited examples of this is that of a check drawn on a bank in Sag Harbor, New York, and deposited in a bank in Hoboken, New Jersey. Although the distance between these two towns is less than 100 miles, the check traveled over 1,200 miles, passed through 11 banks, and was in transit for a period of ten days before finally being presented to the Sag Harbor bank for payment.

These practices greatly increased the number of times each check was handled and added to the costs of collection. Moreover, the circuitous routing of checks resulted in the creation of fictitious reserves. Checks sent to correspondent banks for collection often were counted as legal reserves by the sending bank as soon as they were in the mail. The correspondent bank receiving the check would credit the account of the sending bank immediately upon receipt, although it might require several days to complete collection. The float resulting from these practices was estimated at from \$300 million to \$500 million in 1907. Needless to say, such "reserves" could not be used to meet claims of depositors.

The widespread practice of charging exchange reduced the ability of demand deposits to perform the function of a medium of exchange. Some businesses were reluctant to accept checks drawn on out-of-town banks unless the banks were located in large centers, like New York, Chicago, or St. Louis, where checks were paid at par. Thus, a small town businessman was put to serious inconvenience in making payment to someone in a distant city. He had the choice of keeping funds on deposit in a central money market bank, adding an amount to his check sufficient to offset the exchange charge, or buying from his local bank a draft on a money market bank. The use of drafts drawn on money market banks for making payments, incidentally, resulted in the establishment of a domestic exchange market, with exchange rates between centers reflecting the supply and demand forces in those markets.

The Money Market

In an advanced economy, millions of transactions which involve the use of cash take place each day. In the course of everyday business, some institutions acquire net cash balances for which they have no immediate need while others lose cash and need additional funds immediately. As a result, there emerges

out of the economic process each day a supply of and demand for cash balances which come to focus in the central money market. In this country the hub of the money market for over a century has been New York City.

Although a money market is an essential part of an advanced economy, the institutional arrangements of money markets are variable over time and space; they vary widely from one country to another and from one period of time to another. The institutional structure of the United States money market today, for example, is vastly different from that which prevailed in 1914. Then as now, however, the money market performed the vital function of bringing together suppliers and demanders of short-term funds.

PRINCIPAL PARTICIPANTS In 1914, as today, the principal participants in the money market were New York City's large commercial banks. Between the Civil War and World War I, financial strength, as measured by total assets, or deposits, became increasingly concentrated in a small number of large banks. Because of their size and their extensive correspondent relationships, these institutions occupied a central position at the heart of the money market. Their deposits, particularly bankers' balances, fluctuated widely from day to day, necessitating frequent reserve adjustments through the money market.

Second in importance were the other banks in the country which participated in the market both directly and indirectly. They participated indirectly by holding part of their reserves in the form of deposits at city correspondents, principally New York City banks. By increasing or decreasing their balances, they induced their city correspondents to place more or fewer funds in the money market. At times, especially during periods when money market instruments earned high rates of return, the interior banks participated in the market directly, usually by ordering their city correspondents to purchase money market instruments in their behalf.

Other participants included trust companies, insurance companies, nonfinancial corporations, foreign (principally Canadian) banks, and the United States Treasury. No precise information is available to indicate the importance of these participants, but certainly they were much less important than commercial banks. The Treasury is known to have participated in the market only intermittently and some of the others, such as foreign banks and nonfinancial corporations, were probably more active during periods of high interest rates than at other times. In general, nonfinancial corporations affected the money market only indirectly as their deposit balances and borrowings fluctuated with the vicissitudes of business.

MONEY MARKET INSTRUMENTS It is interesting, if not surprising, that the principal money market instruments of today were used only slightly, or not at all, in 1914 while the most important instrument of that period has now paled into insignificance. During the earlier era the call loan was of commanding importance. Commercial paper ran a poor second and other instruments were used only to a very limited extent. The outstanding volume of short-term Federal Government securities was extremely small and bankers' acceptances were not in general use.

As noted earlier, bankers looked upon call loans as their principal defense against reserve drains resulting from loss of deposits. Banks could place call loans through one of the several money brokers in town, through the money post at the New York Stock Exchange, or directly with a customer. Preferred collateral consisted of railroad stocks, but over time industrials became increasingly acceptable. In 1914, however, lenders still commonly discriminated against

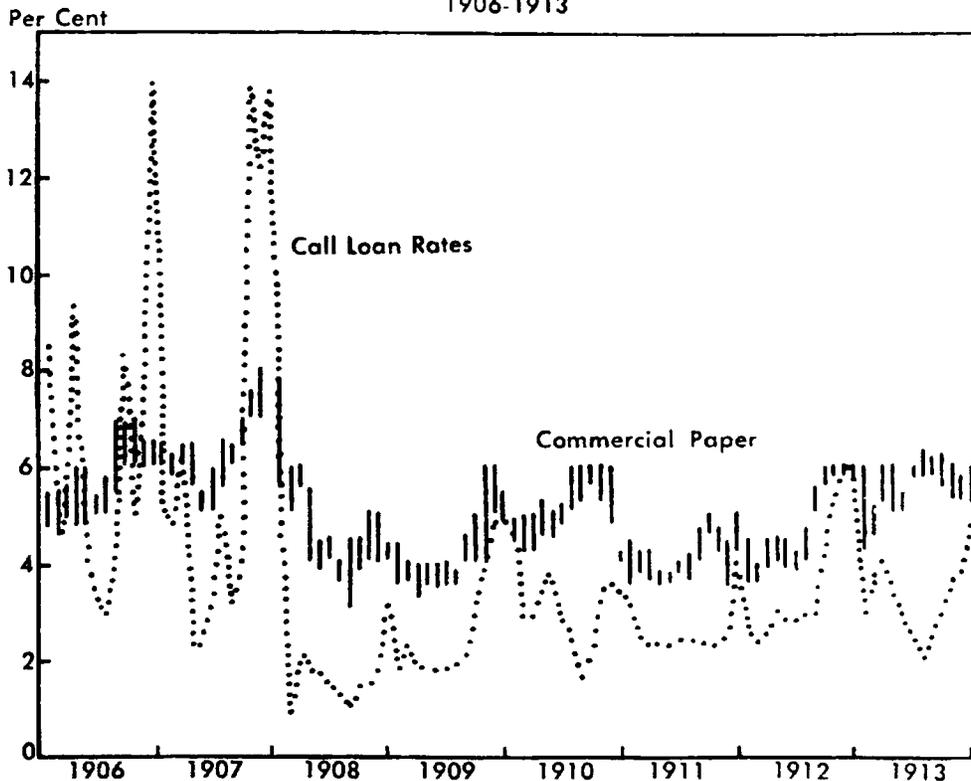
borrowers offering only industrials as collateral by charging a higher rate of interest or by demanding a larger margin. Interest rates on call loans typically fluctuated over a fairly wide range during the course of a year and in periods of crisis sometimes rose to fantastic heights, even reaching 1,200 per cent per annum on one occasion.

Commercial paper in 1914 was placed entirely through note brokers since the large finance companies did not begin offering paper directly until the 1920's. Note brokers had developed fairly extensive organizations through which they could place paper throughout the country with reasonable speed. Banks in that period were by far the largest holders of commercial paper. They found it attractive as a secondary reserve for several reasons: it had a fixed maturity so that holdings could be selected to coincide with expected cash needs; it enabled banks to diversify portfolios both industrially and geographically; it provided a safe investment even during times of financial crisis; and finally, in normal times it could be rediscounted readily.

ADJUSTMENT OF RESERVE POSITIONS From time to time banks found themselves with either more or less reserves than required to meet their legal and self-imposed requirements. Through the money market they invested their excess funds or acquired additional reserves when they were needed. Because interior banks held their reserves in a somewhat different form than banks in New York, the two groups made their adjustments differently.

As a general rule, banks in the hinterland held little more cash (gold and lawful money) than the law required. As explained earlier, national banks in the "country" category were permitted to hold cash reserves as low as 6 per cent.

MONEY MARKET RATES 1906-1913



Source: The Commercial and Financial Chronicle and Report of the Comptroller of the Currency.

Cash in excess of this amount was generally deposited at their city correspondents where it earned a small rate of interest, and cash deficiencies were generally covered by drawing down those deposits.

During periods of low interest rates in the money market, country banks were generally content to keep their excess reserves in the form of deposits. When interest rates were high, however, they tended to convert balances in excess of reserve requirements into higher yielding assets, chiefly call loans and to a lesser extent commercial paper. When purchasing such assets, these banks ordinarily used the agency services of their city correspondents.

The money market banks, of course, were involved in the market continuously, either for their own account or for their country correspondents. In 1914, national banks in New York City held approximately one third of total call loans outstanding. These banks, moreover, felt a responsibility for insuring a reasonable supply of funds for the market, and for that reason often increased their loans when other lenders withdrew.

Since banks in the central reserve cities had to hold all their reserves in the form of gold or lawful money, adjustment of reserve positions could take place only through the money market, primarily through expansion or contraction of call loans. Because their reserves increased with an inflow of funds from interior banks and decreased with an outflow of such funds, their holdings of call loans tended to fluctuate very closely with the ebb and flow of bankers' balances. At planting, harvesting, and Christmas time, the cash needs of country banks generally increased, causing a withdrawal of deposits from New York. In such periods, the New York banks tried to shift their loans to nonbank lenders. Normally they were successful, but the smaller volume of funds going into the call market generally resulted in seasonal peaks in call rates in April, in November, and at the end of the year.

NO LENDER OF LAST RESORT Usually the money market mechanism enabled the New York banks to meet seasonal, cyclical, and random reserve drains without extreme difficulty. On other occasions, however, the system broke down, resulting in crisis and financial panic. Mr. A. Piatt Andrew, in testimony before a Senate committee in 1912, put the problem this way: "The lack of any provision in our System for mobilizing reserves, the lack of effective arrangements for liquefying commercial paper, and the absence of any source of flexibility in the banks' lending power unfortunately force the reserve city banks to keep large auxiliary reserves continually invested in call loans. The call-loan market, unsatisfactory as it is, furnishes to the banks of the country, under the present organization of banking, their only means of mobilizing their reserves, of liquefying their assets, and of securing flexibility in their lending power—their only means of meeting strains and emergencies."

Very simply, the problem was that the money market banks had thrust upon them a task which, from its very nature, they were not equipped to handle. It was a job for a central bank. Preventing periodic crises would have required pumping liquidity into the banking system on a massive scale and this was something commercial banks could not do. When for any reason fear gripped the nation, both banks and individuals began withdrawing deposits from the New York banks, pulling down their cash reserves. To replenish these, the money market banks attempted to shift call loans to nonbank lenders but, unfortunately, such lenders were generally unwilling to make new call loans during periods of crisis. As a matter of fact, many attempted to shift their loans to banks, thus putting the New York banks under pressure to make new call loans at a time when they needed reserves. In such circumstances, banks throughout

the country were occasionally forced to suspend cash redemption of deposits, throwing the country's payments mechanism badly out of kilter. Such financial disasters affected trade and commerce fairly directly as bankers were forced to restrict credit when their reserves were deficient.

In the absence of a central bank which could provide credit to the banking system in necessary amounts, the banks and the Treasury resorted to several partial remedies. The large banks in New York, realizing that money panics stemmed in large part from loss of confidence, attempted to restore confidence by marshalling their resources in a show of strength. This might involve a commitment by a hastily formed banking syndicate to make call loans at a fixed rate, such as 6 per cent, or the provision of cash to banks suffering from runs. Such displays of strength sometimes allayed fears and saved the banking system from a general suspension of cash payments.

Another emergency measure was the use of clearing house loan certificates to economize on cash reserves in adjusting clearing balances. To protect the cash reserves of a bank whose reserves were low, the clearing house would issue loan certificates which the bank could use to pay an adverse clearing balance. On one or two occasions these certificates got outside the banks and were used by the nonbank public as emergency currency. Sometimes, if the members agreed, the clearing house took co-operation a bit further and ordered an equalization of cash reserves. This action tended to strengthen the weakest link in the chain of banks, and perhaps prevent a run on one which might have spread to others.

In a limited way the Treasury also, on occasion, tried to shore up the system. It sometimes supplied reserves to the banking system by shifting Treasury deposits from the subtreasuries to the banks or by redeeming Government bonds. Treasury participation tended to increase over time as the Government assumed somewhat more responsibility for the financial system. Although sometimes successful, these emergency measures were no substitute for a genuine lender of last resort.

Banking Reform

NEED FOR REFORM From the above description, it is obvious that there was an urgent need for improvement in the banking and financial system of the United States in 1914. The currency, while quite safe, was extremely inelastic. It did not have the flexibility necessary to meet ordinary seasonal and secular needs, much less the extraordinary demands of cyclical and emergency peaks. Furthermore, this system entailed considerable movement of currency about the country with its attendant delay, risk, and expense.

The reserve arrangements, however, were more urgently in need of improvement. The ultimate cash reserves of the banking system were all held by privately owned commercial banks operated for profit. These banks were under pressure to keep "loaned up" as far as reserves permitted in order to earn as much as possible—usually there was little or no cushion of excess reserves to meet any extra demand. Further, when these cash reserves were "pyramided" and concentrated in New York they would support a larger volume of deposits than when they were scattered in banks about the country. Thus, when reserves were drawn out of New York a scarcity of reserves was automatically created. There was nowhere in the system any agency or facility charged with the responsibility of keeping a cushion of unused reserves in normal times or which had the power to create additional reserves in times of need—no "lender of last resort." In brief, there was no elasticity in the reserve arrangements.

In the clearing of checks, the more comprehensive a system is the more

efficient it will be. Checks can be sent by the most direct route and claims will cancel out to a greater extent, thus reducing payments needed to settle balances. Before 1914 there were a number of clearing systems in the country and the above advantages were not realized as explained earlier. Checks were often routed in very circuitous ways and large amounts of currency were in constant movement to settle balances.

REFORM PROPOSALS These defects had been recognized by bankers, economists, and other interested parties for many years. Several major proposals had been advanced and discussed but, as usual, there was opposition to change in many quarters. Finally, the severe banking panic of 1907 demonstrated beyond question the need for reform, and Congress set up the National Monetary Commission to study the question and prepare legislation. After extensive investigation and long study the Commission made its final report in January 1912. Political developments caused some delay and Congress did not start intensive work on the problem until 1913. The Federal Reserve Act became law on December 23 of that year.

AN ELASTIC CURRENCY The Federal Reserve Act provided for a new key element in the currency system—an elastic element to supplant the inelastic national bank note based on Government bonds. Federal Reserve notes were to be issued by the 12 Reserve Banks based on a minimum gold reserve of 40 per cent plus collateral of 100 per cent in rediscounted eligible paper. Later this was changed to permit the gold reserve to be counted as part of the 100 per cent collateral. The “real bills” theory on which this was based was that rediscounted eligible paper would provide elasticity to the notes. Eligible paper was short-term promissory notes created when commercial banks made loans to their business customers. The theory was that when business activity increased banks would make more such loans and rediscount more of them at the Federal Reserve Banks. This would provide the Reserve Banks with more collateral and permit them to issue more Federal Reserve notes, the need for which would also be increased by the higher level of business activity. When business activity declined, the mechanism was supposed to work in reverse, thus forcing the contraction of Federal Reserve notes and thereby providing an automatic elasticity.

IMPROVEMENT IN RESERVES The reserve situation was improved in several ways. 1) Through the Federal Reserve note, increased need for money in circulation could be met without depleting the reserves of large city banks. 2) The reserves of all member banks were centralized in the 12 Reserve Banks, partly in the beginning and entirely starting in 1917. 3) Reserve Banks could create additional reserves by rediscounting. The Reserve Banks thus became “lenders of last resort” to which member banks could turn for appropriate assistance.

Further, reserve requirements of national banks were sharply reduced by the original Federal Reserve Act and still further by an amendment of 1917. Time deposits were recognized as a separate category for the first time and a reserve of 3 per cent was required. Against demand deposits the requirements were 13, 10, and 7 per cent for banks in the different reserve classifications instead of the 25, 25, and 15 per cent previously required under the National Bank Act. This sharp reduction in reserve requirements plus the substitution of deposits in the Reserve Banks for cash and deposits with correspondent banks allowed the creation of a much greater volume of deposits on the basis of a given amount of gold.

The elasticity of both Federal Reserve notes and commercial bank reserves depended on two principles. First, in normal times the Reserve Banks would

The Federal Reserve System

maintain some margin of unused gold reserves. Second, in times of stress the gold reserve requirements could be suspended for limited periods and under certain restrictions.

CHECK CLEARING The Federal Reserve System provided the facilities for a greatly improved system of check clearing. Banks with a large majority of all deposits in the country were covered, making the system much more comprehensive. Checks could be routed in more direct ways, and clearing balances could be settled by book entries, thus avoiding the need to ship currency. This clearing system was made complete by the Gold Settlement Fund, which allowed Federal Reserve Banks to settle net claims among themselves by book entries.

THE PHILOSOPHY OF THE NEW SYSTEM The changes Congress wished to make, and thought it was making, are described in a report of the House Committee on Banking and Currency on the Federal Reserve bill in 1913. It listed those changes as follows:

"1. Establishment of a more nearly uniform rate of discount throughout the United States, and thereby the furnishing of a certain kind of preventive against overexpansion of credit which should be similar in all parts of the country.

"2. General economy of reserves in order that such reserves might be held ready for use in protecting the banks of any section of the country and for enabling them to go on meeting their obligations instead of suspending payments, as so often in the past.

"3. Furnishing of an elastic currency by the abolition of the existing bond-secured note issue in whole or in part, and the substitution of a freely issued and adequately protected system of bank notes which should be available to all institutions which had the proper class of paper for presentation.

"4. Management and commercial use of the funds of the Government which are now isolated in the Treasury and subtreasuries in large amounts.

"5. General supervision of the banking business and furnishing of stringent and careful oversight.

"6. Creation of market for commercial paper."

Other objects were sought, incidentally, in these plans, but they were not as basic as the chief purposes enumerated.

The major element missing here was the ability of a central bank to create reserves. In fact, the Committee did not think it was planning a central bank and concluded that ". . . there should be no necessary attempt to base the results of the bill upon the central banking idea." Mr. Carter Glass, the chairman of this Committee and one of the founders of the Federal Reserve System, apparently was never willing to admit that he helped to create a central bank.

Mr. Glass' philosophy was shared, at least in part, by the Democrats who were then in control of Congress. That philosophy, which governed the design of the Federal Reserve System, required that member banks should withdraw their reserves from large city banks and place them with regional reserve banks. This transfer was expected to mobilize existing reserves more effectively to meet seasonal, cyclical, and emergency needs and at the same time create regional money centers and reduce the importance of the large money centers. The "real bills" principle, as embodied in the provisions of eligible paper collateral behind Federal Reserve notes, would afford elasticity without permitting inflation. It has worked out quite differently, but such was the thinking in 1913.

THE INTERIM, 1914-1964

Between 1914 and 1964 tremendous changes took place in the monetary system and in the number, nature, structure, and practices of financial institutions. As a substitute for a comprehensive discussion of those changes, the following list of major changes and developments is presented. The list could be prolonged almost indefinitely but perhaps the items included will suggest the magnitude and scope of the changes.

I. CHANGES IN THE MONETARY SYSTEM

Federal Reserve notes issued beginning in 1914.

Large imports of "hot money" and gold from Europe, World War I and 1930's.

London Monetary Conference, 1933.

Gold coins and certificates withdrawn from circulation, 1934.

Silver Purchase Act passed, 1934; repealed, 1963.

Retirement of national bank notes began, 1935.

Large outflow of gold, 1958-1963.

Gradual replacement of silver certificates by Federal Reserve notes began, 1963.

II. CHANGES IN BANKING STRUCTURE AND PRACTICE

Bank failures and decline in the number of banks, 1920-1933.

United States Government deposits exempted from reserve requirements, World Wars I and II.

The Banking Holiday, 1933.

Federal Deposit Insurance, 1933.

Minimum capital for national banks raised to \$50,000, 1933.

Payment of interest on demand deposits ended, and regulation of interest rates on time deposits began, 1933.

Separation of commercial and investment banking, 1933.

The rapid growth of group and branch banking.

The growth of consumer and real estate loans by commercial banks.

Bank Holding Company Act, 1956.

Bank Merger Act, 1960.

Negotiable certificates of deposit began rapid growth, 1961.

Elimination of central reserve city classification, 1962.

Sale of subordinated debentures by banks to raise capital, 1962.

Issuance of short-term promissory notes by commercial banks, 1964.

III. CHANGES IN THE FEDERAL RESERVE SYSTEM AND OPERATIONS

Broadening of discount and rediscount privileges at Federal Reserve Banks.

- A. Discounting of member bank promissory notes, 1916.
- B. "War paper," 1917.
- C. Sec. 10(a) and Sec. 10(b) advances, 1932.

Federal Government securities allowed as collateral for Federal Reserve notes, 1932.

Creation and modification of Federal Open Market Committee, 1933 and 1935.

Federal Reserve Banks permitted to make industrial loans, 1934; authority repealed, 1959.

Reorganization of Federal Reserve Board, 1935-1936.

- A. Name changed to Board of Governors of the Federal Reserve System.
- B. Secretary of the Treasury and Comptroller of the Currency excluded from the Board.
- C. Reduced from 8 to 7 members.
- D. Term of office increased from 12 to 14 years.

Limited discretion over reserve requirements granted the Board of Governors, 1933 and 1935.

Board of Governors given authority to set margin requirements, 1934.

Federal Reserve support of Government securities market, 1942-1951.

Reduction in gold reserve requirements against notes and deposits of Federal Reserve Banks, 1945.

Treasury-Federal Reserve Accord, 1951.

"Bills usually" doctrine began, 1953; ended, 1961.

Federal Reserve operations in foreign currencies began, 1962.

IV. CHANGES IN THE MONEY MARKET AND ITS INSTRUMENTS

National banks permitted to create bankers' acceptances, 1914.

Increase in the Federal debt, 1917-1920; reduction, 1920-1930.

Use of Treasury bills began, 1929.

Increase in the Federal debt, 1930-1964.

Development of Federal funds market, 1920's; revived, 1950's.

Development of repurchase agreements, 1920's; revived, 1950's.

V. CHANGES IN OTHER FINANCIAL INSTITUTIONS

Proliferation of Government lending agencies, 1930's.

Exchange Stabilization Fund, 1934.

Mortgage guarantees and insurance.

- A. Federal Housing Administration, 1934.
- B. Veterans' Administration, 1944.

Growth of financial intermediaries.

- A. Consumer and sales finance companies.
- B. Savings and loan associations.
- C. Credit unions.
- D. Pension and retirement funds.

International Monetary Fund, 1945.

International Bank for Reconstruction and Development, 1945.

THE MONETARY AND BANKING SYSTEM

1964

The Monetary System

THE STANDARD The half century that has passed since the Federal Reserve System was established saw tremendous changes in the monetary field. Nowhere was this change more fundamental than in the national and international monetary arrangements of the major countries of the world. The automatic gold standards of the pre-World War I period were swept out of existence by the financial upheavals resulting from the war and by the international financial collapse of the early 1930's.

The United States abandoned the gold coin standard in 1933, and Congress later established a new monetary standard which differs greatly from the old one. The dollar is defined so as to give gold a monetary value of \$35 per ounce. Title to all gold bullion, coin, and certificates is vested in the United States Government, and a new type of gold certificate is issued to the Federal Reserve Banks to serve as legal reserves against their note and deposit liabilities. Gold is not coined, and the gold stock is held in the form of bars. Individuals are forbidden to hold, transfer, import, or export gold except under regulations issued by the Secretary of the Treasury, and with minor exceptions redeemability of all United States currency in gold has been eliminated.

Domestically, the monetary system is indirectly linked to gold in that the dollar is defined in terms of gold and gold certificates serve as legal reserves against Federal Reserve notes and the reserve deposits of member banks. Money is not freely convertible into gold, however, and changes in the monetary gold stock do not directly influence the total volume of money.

Gold is much more important in our international monetary arrangements than in our domestic monetary system. The currencies of member countries of the International Monetary Fund are valued in terms of gold and our Government stands ready to buy gold freely and to sell it to foreign official holders of dollar balances, both at fixed prices. Gold is a major component of international monetary reserves, along with dollar and sterling balances.

THE CIRCULATION The many changes in our monetary system in the past half century are reflected in the composition of our money supply. Gone from circulation are the gold coins and certificates that were important in the pre-World War I period. The Federal Reserve note has become the dominant form of hand-to-hand money. National bank notes, which accounted for more than one fifth of the 1914 currency supply, have been in process of retirement since 1935 and have practically disappeared from circulation.

Of the currency and coin in circulation, over 85 per cent is in the form of Federal Reserve notes. Silver certificates, the only other important type of paper currency, make up about 4 per cent, while standard silver dollars, subsidiary silver coins, and minor coins constitute more than 8 per cent. The remainder is in the form of United States notes and various types of currency in process of retirement. Silver certificates are gradually being replaced by Federal Reserve notes under the provisions of recent legislation. Demand deposits remain by far the most important component of the money supply, accounting for more than three fourths of the total.

The inelasticity of the currency supply, which was one of the principal reasons for establishing the Federal Reserve System, is no longer a feature of our

Table III

CURRENCY AND COIN IN CIRCULATION OUTSIDE THE TREASURY AND FEDERAL RESERVE BANKS June 30, 1964	Amount (\$ billions)	Per Cent of Total
Kinds of Currency		
Federal Reserve Notes	32,338	85.7
Treasury Currency—Total	5,396	14.3
Standard Silver Dollars	482	1.3
Silver Certificates	1,708	4.5
Subsidiary Silver Coin	1,987	5.3
Minor Coin	736	1.9
United States Notes	321	0.9
In Process of Retirement	162	0.4
TOTAL	37,734	100.0

Source: Board of Governors of the Federal Reserve System.

monetary system. The Federal Reserve note is secured by a gold certificate reserve of 25 per cent and collateral of 100 per cent which may be in either gold certificates (including most of those held as reserves) or various types of promissory notes, bills of exchange, or United States Government securities. Thus, most of the assets of the Federal Reserve Banks may be used as collateral for notes. Any member bank desiring additional currency may acquire it by drawing down its reserve account at its Federal Reserve Bank. If a bank acquires more currency than it needs it may remit the excess to its Federal Reserve Bank for credit to its reserve account. The volume of currency in circulation, therefore, is determined almost entirely by the desires of the public.

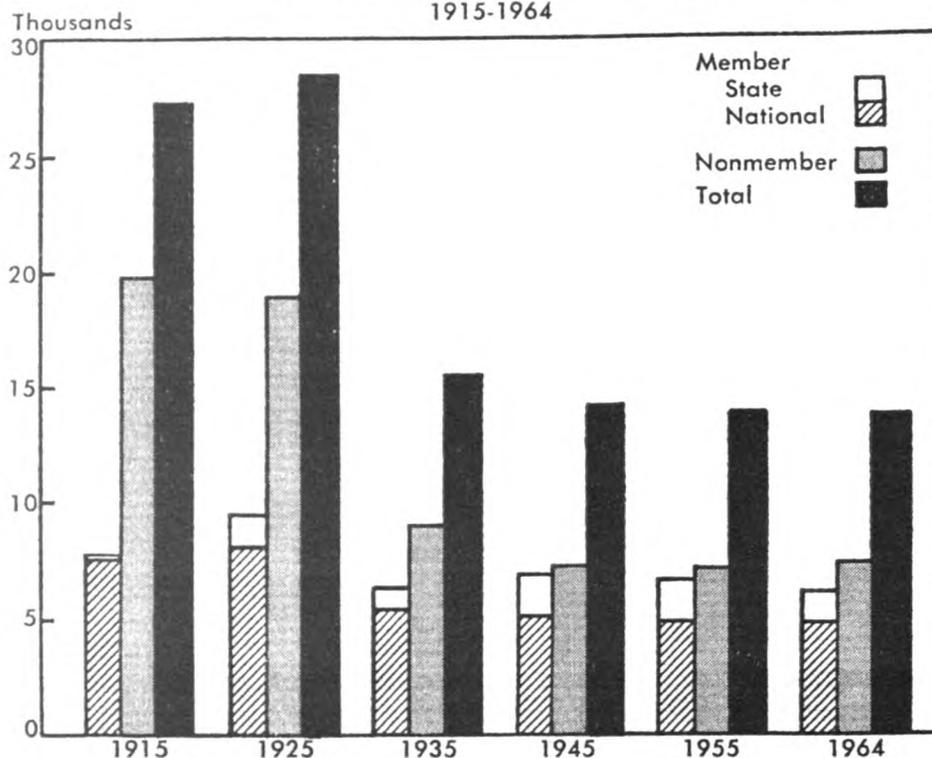
The Commercial Banking System

THE STRUCTURE The changes in the commercial banking system in the last 50 years, both structural and functional, have been sweeping. Structurally, these changes have involved a large-scale reduction in the number of banks and a substantial growth in branch banking. Functionally, the development and growing importance of new types of lending activities, together with the provision of new services to customers, have changed the whole concept of commercial banking.

The growth in the number of banks, which began shortly after the Civil War, continued until 1921, at which time the number exceeded 30,000, but the large number of failures in the 1920's and early 1930's reduced it to slightly more than 14,000 by 1933. The next two years saw a small increase, but generally the trend was downward. In 1961, a moderate upward trend started and at the end of June 1964 commercial banks numbered 13,669. Despite the drastic reduction in numbers, resources of commercial banks totaled \$315 billion, almost 14 times as large as they were in 1914.

State banks still outnumber national banks, but the latter have increased relatively from about 28 per cent of all banks in 1914 to over 34 per cent today. On June 30, 1964, national banks had resources of \$175.2 billion, or 54 per cent of the total, compared with a little less than 50 per cent in 1914. The average per bank was over \$36 million. Resources of state banks amounted to

NUMBERS OF BANKS, BY CLASS 1915-1964



\$146 billion, or an average of about \$16 million per bank, somewhat less than half the figure for national banks.

All national banks in the 50 states and the District of Columbia are members of the Federal Reserve System and 1,478 state banks have chosen to become members. Thus, only about 45 per cent of all commercial banks are members, but they hold over 83 per cent of total banking resources.

Although there are only about half as many banks as in 1914, there are many more branches, so the total number of banking offices now is almost as large as then. The substantial growth in branch banking was caused by numerous changes in the economic and financial systems and in legislation governing branching. One significant legal change gave national banks freedom to establish branches within the limits set by the laws of the state in which they operate. In addition, many states have liberalized their laws relating to branch banking.

These changes, in conjunction with powerful economic forces, resulted in growth in branches and additional offices from 759 in 1914 to 13,736 in 1964. Branches of national banks increased from 26 to 7,535, and the total of commercial banking offices (home offices plus branches and additional offices) is now over 27,400. Because of differences in state laws the growth of branch banking has been far from uniform. Some states prohibit or severely restrict branching, a number permit statewide branching, while the laws of the others fall somewhere between these extremes. As a result, more than half the branches and additional offices (excluding head offices of banks) are located in six states, and California alone has over 15 per cent of the total.

BANK ASSETS The balance sheet of the banking system reveals some of the basic functional changes in commercial banking in the last half century. Some of these changes have grown out of alterations in banking laws, including the establishment of the Federal Reserve System and the relaxation of legal restrictions on certain types of lending. Some have resulted from changes in the institutional structure, such as the evolution of the money market and the emergence of nonbank financial intermediaries. Still others have arisen from basic social and economic developments which have created a demand for new types of loans and financial services.

The most obvious changes in assets (in relation to total resources) were the decline in loans (from 58 to 52 per cent), a large increase in United States and state and local government securities, large declines in vault and bankers' cash balances, and a substantial rise in collection items.

One interesting development has been the virtual elimination of the differences in asset structure between national and state banks. While some differences between state and national banks remain, the most significant differences today are between member and nonmember banks.

The various items in the cash and due from banks category account for a significantly smaller portion of total assets than they did 50 years ago. Cash items in process of collection have increased in relative importance but this has been more than offset by the decline in vault cash. For all banks, vault cash as a percentage of total assets declined from 7.0 per cent to 1.4 per cent. For member banks the latter figure was 1.3 per cent and for nonmember banks, 2.0 per cent.

Investments by commercial banks have nearly doubled in relative importance in the past 50 years, now representing almost 30 per cent of total assets. Holdings of the obligations of Federal, state, and local governments have increased greatly while securities of private corporations have declined sharply in relative importance.

The increased importance of the investment portfolio and the changes in its composition are the result of a number of factors. Among these are the growth of the public debt and the development of Treasury bills as a prime money market instrument. Banks today hold secondary reserves mainly in the form of highly liquid Government securities rather than in call loans. The tax exemption accorded to income from state and local obligations helps to account for the growing popularity of this type of investment.

Perhaps the greatest change in commercial banking has been in the types of loans made. Banking statistics for 1914 do not provide much information as to the purposes for which loans were made, except for real estate loans. Nevertheless, information on the present composition of loan portfolios, together with a knowledge of general banking developments since 1914, provides some insight into the magnitude of the changes that have taken place.

The ratio of loans to total assets has declined from about 58 per cent to about 52 per cent, reflecting the growth in investments. The disparity between the ratios for state and national banks has been almost completely eliminated. Member banks, however, have higher loan-to-asset ratios than nonmember banks.

A noteworthy development has been the growth in real estate loans by national banks. Before 1914, such loans were not permitted, but over the years the restrictions have been relaxed, and today they are second only to business loans in the portfolios of national banks. For state banks, real estate loans still constitute about one fourth of total loans.

Consumer loans by commercial banks also have increased tremendously. Although bank credit has long been used to finance personal expenditures,

specialized consumer lending operations is a relatively recent development for most banks. Today, loans to individuals for personal expenditures account for more than one fifth of total bank loans.

The above changes, along with the development of term loans to business, represent a departure from the traditional concept of commercial banking. That concept, which restricted commercial bank lending to short-term, self-liquidating, commercial loans, was not entirely applicable to the banking system of 1914. It is even less applicable to the "department stores of credit" that are modern commercial banks.

BANK LIABILITIES There have also been important changes in the sources of bank funds, although these changes have been less fundamental than those relating to assets. Capital accounts provide less than 9 per cent of the funds for the average commercial bank, about half of the 1914 figure. The decline in relative importance of capital accounts has been matched by a corresponding

Table IV

ASSETS AND LIABILITIES OF COMMERCIAL BANKS June 30, 1964 (Amounts in millions of dollars)	All Commercial Banks		Member Banks		Nonmember Banks	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Assets						
Cash, Reserves, etc.—Total	53,168	16.5	46,767	17.4	6,401	12.2
Currency and Coin	4,539	1.4	3,511	1.3	1,028	2.0
Reserves with Federal Reserve	16,774	5.2	16,774	6.2
Due from Banks	13,057	4.1	8,150	3.0	4,907	9.3
Cash Items in Process of Collection	18,799	5.8	18,332	6.8	467	0.9
Obligations of U. S. Government	59,322	18.4	46,226	17.2	13,096	25.0
Other Securities	36,394	11.3	30,246	11.2	6,147	11.7
Loans and Discounts—Total	167,714	52.1	141,459	52.5	26,256	50.0
Real Estate Loans	41,388	12.9	32,794	12.2	8,594	16.4
Commercial Loans	55,061	17.1	49,217	18.3	5,844	11.1
Loans to Individuals	37,594	11.7	30,275	11.2	7,320	13.9
Other	33,670	10.5	29,173	10.8	4,498	8.6
Other Assets	8,562	2.7	7,537	2.8	1,025	2.0
TOTAL ASSETS	321,909	100.0	269,425	100.0	52,484	100.0
Liabilities						
Demand Deposits—Total	164,639	51.1	139,493	51.8	25,146	47.9
U. S. Government	10,257	3.2	9,342	3.5	915	1.7
Commercial Banks—U. S. and Foreign	14,410	4.5	13,811	5.1	600	1.1
Other Demand	139,972	43.5	116,340	43.2	23,632	45.0
Time Deposits—Total	120,264	37.4	98,559	36.6	21,704	41.4
Savings Deposits	79,327	24.6	65,099	24.2	14,229	27.1
U. S. Government	238	0.1	214	0.1	24	0.1
Mutual Savings—Commercial, U. S. and Foreign	677	0.2	525	0.2	151	0.3
Other Time	40,022	12.5	32,721	12.1	7,300	13.9
Miscellaneous Liabilities	10,238	3.2	9,323	3.5	915	1.7
Capital Accounts	26,768	8.3	22,049	8.2	4,719	9.0
TOTAL LIABILITIES AND CAPITAL ACCOUNTS	321,909	100.0	269,425	100.0	52,484	100.0

Source: Board of Governors of the Federal Reserve System.

increase in deposits. In addition, the increase in the relative importance of national bank deposits reflects the elimination of national bank notes.

Moreover, there have been important shifts in the composition of commercial bank deposits. Interbank deposits are much less important than they were in 1914, mainly because of the decline in these deposits at national banks. Time deposits, on the other hand, have greatly increased in importance, and here, too, national banks have accounted for most of the change. Time deposits other than governmental and interbank accounted for 26 per cent of total deposits in 1914; they now make up 42 per cent of the total. On the same basis, demand deposits have dropped from 58 per cent to about 49 per cent of total deposits.

The growth of time deposits has not progressed steadily, however. They rose more rapidly than demand deposits in the 1920's and by 1931 amounted to over 40 per cent of total deposits. Through the 1930's and 1940's they grew less rapidly than demand deposits, but in recent years there has been a striking reversal of trend. Since June 1960 total demand deposits have increased from \$140 billion to \$165 billion, or about 18 per cent, while time deposits were rising from \$69 billion to \$120 billion for an increase of 74 per cent. Thus, in these four years time deposits grew about four times as fast as demand deposits.

RESERVE REQUIREMENTS The main features of the legal reserve system established by the original Federal Reserve Act have been retained, but several important changes have been made. One of the most significant, perhaps, gives the Board of Governors discretionary power to change, within limits, the reserve requirements of member banks. This action, taken in the 1930's, constituted a basic change in the legal reserve concept, transforming it from a reserve held mainly for liquidity purposes to an instrument of monetary control. A second important change, first fully effective in 1960, was the inclusion of vault cash in the legal reserves of member banks. Finally, in 1962 the central reserve city classification was eliminated.

The Board of Governors may set reserve requirements against demand deposits between 10 and 22 per cent for reserve city banks and between 7 and 14 per cent for country banks. For both classes of banks the requirement against time deposits may range between 3 and 6 per cent. The actual requirements have trended downward from the high levels that prevailed in the early 1950's. Reserve city and country banks must now hold 16½ per cent and 12 per cent, respectively, against demand deposits and 4 per cent against time deposits.

ACTUAL RESERVES Banks hold a much smaller part of their assets in the form of cash and due from banks (including Federal Reserve Banks) than they did 50 years ago. The average for all commercial banks is now about 11 per cent, compared with almost 19 per cent then. Although the averages for member and nonmember banks are approximately the same, they differ in composition. Nonmember banks hold over 80 per cent of their combined "cash and due from" item in the form of deposits with correspondent banks while member banks hold about 60 per cent of theirs as deposits with their Federal Reserve Banks.

But in measuring the contribution of these reserves to liquidity and safety, it is necessary to distinguish between the individual bank and the banking system. A single bank may look to a deposit in another commercial bank as a source of funds in time of need, but interbank deposits provide no liquidity for the entire banking system, as our experience before 1914 illustrates. For the banking system, therefore, only vault cash and deposits at Federal Reserve Banks are equivalent to cash. Measured in this way, commercial banks hold cash reserves equal to about 7.5 per cent of total deposits.

Banks hold these cash reserves mainly to meet legal requirements and for ordinary working needs rather than to provide emergency liquidity. In periods of increased need for funds, they may adjust their reserves through the money market, and member banks may borrow from their Reserve Banks. Finally, banks may adjust their reserve positions by reducing the volume of their loans, but this requires time and reduces earnings.

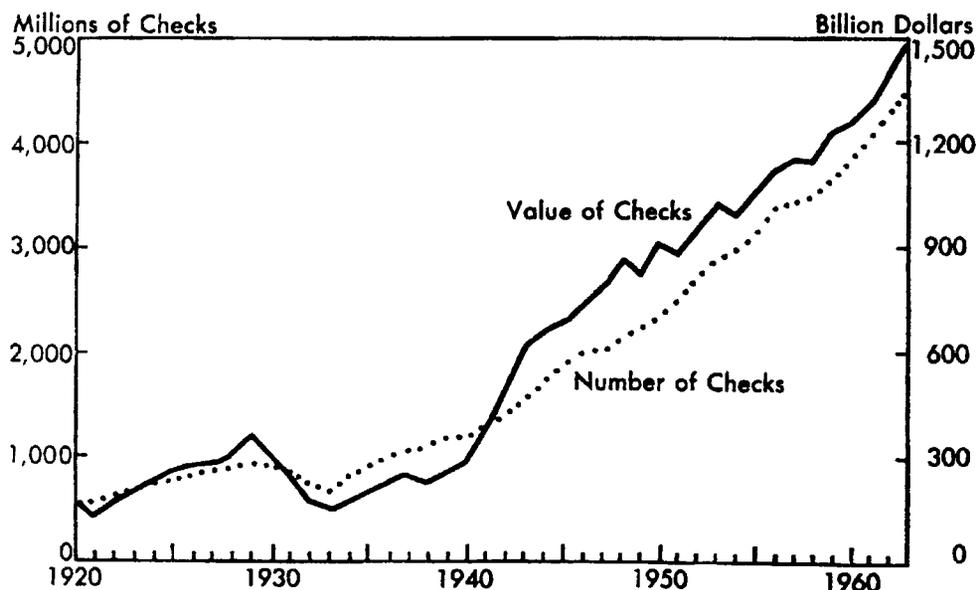
These methods of reserve adjustment differ from those used in 1914 in several ways. Money markets are much more fully developed now. Also, the Federal Reserve System, through loans to member banks or open market operations, can create additional reserves. This last is by far the most important change. The ability of the Federal Reserve System to create reserves, combined with such other changes as deposit insurance, makes the occurrence of a liquidity panic on the order of those experienced in the pre-1914 period almost inconceivable.

CHECK COLLECTION Today, as in 1914, checks drawn on local banks are exchanged either directly or through a local clearing house. In some cities, Federal Reserve Banks are members of the clearing house and commercial banks may settle balances through clearing accounts with the Reserve Bank. But the major criticism of the pre-1914 system was concerned with the manner in which out-of-town checks were handled, and it is here that the greatest improvement has been made.

When a bank receives a check drawn on a bank in another town, it may send the check to the District Federal Reserve Bank, to a correspondent bank, or directly to the bank upon which it is drawn. Member banks may use the Federal Reserve clearing system free of charge, and all members are required to pay at par all checks presented by the Reserve Bank. The Reserve Banks will not accept for collection checks drawn on nonpar banks.

The operations by which checks are collected through the Federal Reserve System have been described many times and the description will not be repeated here. These operations result in balances owed to and from the different Reserve Banks, and these balances are settled daily by entries in the books of the Interdistrict Settlement Fund which is maintained by the Board of Governors of the Federal Reserve System. The assets of this Fund consist of part

CHECKS HANDLED BY FEDERAL RESERVE BANKS



of the gold certificate reserves of the Reserve Banks, and payments between Reserve Banks result in changes in the ownership of that Fund.

Because of geographical considerations and the large number of banks in our system, correspondent relationships are still an important aspect of banking in the United States. Banks in financial centers compete keenly with each other to provide excellent clearing services as well as other services for their correspondents. But collection through correspondent banks today is far different from what it was in 1914, partly because of greatly improved techniques and partly because the practice of charging exchange is much less prevalent than it once was.

These changes, along with such facilities as the Federal Reserve wire transfer system, have greatly improved the mobility of funds and have contributed to the establishment of parity for checkbook money in all sections of the country. The inefficiency and risk that characterized the pre-1914 system have largely been eliminated. Continuing efforts are being made to increase the speed and efficiency of the system, as in the growing use of electronic check processing equipment and in the use of air mail wherever possible.

RECENT DEVELOPMENTS The above sections have at several places noted the sweeping changes which have taken place in the financial sector of the economy and especially in the banking system. Three fast-moving innovations of recent years indicate that the tempo of change not only is being maintained but may be accelerating. All of these innovations affect immediately the liabilities and/or capital accounts sectors of the balance sheet. Potentially they could cause far-reaching changes in the financial structure and practices of the banking system.

The first of these changes, initiated in the early months of 1961, was the introduction and rapid growth of negotiable certificates of time deposits. For many years the large New York banks had been lukewarm to time deposits and had offered no special inducements to attract them. In the meantime corporate treasurers were becoming more and more attracted to the handsome returns on money market paper as short-term yields rose, and were reducing demand deposit balances in order to take advantage of them. This had two effects. Corporate treasurers were bypassing banks and thus depriving the banks of their function as a financial intermediary. Also, demand deposits were being used more intensively—their turnover was being raised—thus enabling a given amount of deposits to do more work and reducing the total demand for such deposits. Large banks in New York and elsewhere which had not sought time deposits aggressively were losing out in the competition for deposits. So they decided, in effect, to offer a money market instrument of their own carrying rates which would attract buyers.

This effort has been successful and a total of more than \$12 billion of certificates were outstanding in late 1964. But there are potential problems connected with these certificates and the short experience with them does not indicate how serious those problems may be or how they might best be dealt with.

Another of the recent developments is the use by banks of subordinated debentures to raise capital funds. These debentures are subordinate to deposits in their claim against a bank's assets. They usually run for several years and may be sold publicly or placed privately. In contrast to time deposits, including certificates of deposit, they have a number of advantages to the issuing bank. (1) They increase a bank's capital without diluting the equity of stockholders, thereby giving the stock a leverage with respect to earnings. The larger capital increases the bank's lending limit, whereas more time deposits may require the bank to raise more capital in order to maintain a satisfactory

ratio between capital funds and deposits. (2) The rate of interest the bank can pay to obtain funds is not subject to Regulation Q. (3) The bank does not have to maintain reserves against the debentures. (4) They are not subject to Federal Deposit Insurance Corporation assessments. (5) Servicing and administrative expenses on the debentures are not as high as they are on time deposits.

The extensive use of subordinated debentures may well create problems for the banking system but again the experience with them has been too short and the prevailing conditions have been too favorable to permit anything approaching a final judgment. One of the problems touches the fundamental function of bank capital. In the past it has been held that a major function of bank capital is to provide a cushion to protect depositors. Even though the debentures are subordinate to depositors' claims, they might dilute the depositors' protection if the repayment of a large issue of debentures should weaken the bank sufficiently to force it into insolvency.

The most recent development, begun after the middle of 1964, is the use by banks of unsecured promissory notes. These are of the same general nature as the notes long used by finance companies and other large national corporations to raise working capital. They usually run for less than one year; they could run for shorter periods, and someone has suggested that they could even be demand notes. If they become established they could be marketed quickly and easily at very low cost. They have all the advantages cited above for debentures and in addition are more economical to issue and are more flexible in that they can be tailored more accurately to meet the needs of the issuing bank and the buyer.

The Federal Reserve System also has changed greatly in the first half century of its existence. It is inevitable that an institution of this kind should grow, change, and develop in its formative years but in this case the tempo of change was greatly accelerated by far-reaching changes in the environment which have been noted earlier. Some of the changes in the System were gradual, continuing, and at times difficult to detect, while others were sharp, definite, and concentrated at a specific point of time. Without attempting to give a comprehensive treatment of these changes, even in outline, this brief section will note the major changes under two categories—changes in structure and changes in practices.

STRUCTURAL CHANGES In the beginning the 12 Reserve Banks comprised a rather loosely coordinated system subject to only moderate supervision and control from the center. As time passed and the country became more closely integrated economically and financially, closer coordination became necessary and more central control perhaps inevitable. This took place in several areas but is most clearly illustrated by open market operations. Originally these operations, very limited in scope, were carried out by each Bank individually. This soon proved unworkable and an advisory committee was established to coordinate the operations on a voluntary basis. This went through several stages of development with the Federal Reserve Board exercising varying degrees of control. The Banking Act of 1933 gave legal status to an open market committee composed of the 12 governors (presidents) of the Reserve Banks. Banks could refuse to participate in operations recommended by the committee, but no Bank could engage in operations on its own account. Finally, the Banking Act of 1935 created the present Federal Open Market Committee composed of the seven members of the Board of Governors and five Reserve Bank presidents.

The Federal Reserve System

It has full control of open market operations and no Bank may refuse to participate in System operations.

The Banking Acts of 1933 and 1935 made other significant changes, most of which increased the powers of the Board of Governors. The major changes were: (1) The Secretary of the Treasury and the Comptroller of the Currency were removed as *ex officio* members of the Board of Governors and the membership was reduced from eight to seven. (2) The Board members were placed on the Open Market Committee. (3) The Board was given discretionary power to change, within limits, reserve requirements of member banks. (4) The Board was given power to regulate interest paid by member banks on time and savings deposits. (5) The Board was given power to approve the appointment of the presidents and first vice presidents of Reserve Banks. (6) Reserve Banks were required to fix rediscount rates every 14 days, giving the Board more frequent opportunities to approve or disapprove them. Other legislation gave the Board power to set margin requirements on stocks traded on national security exchanges, to approve or disapprove bank mergers when the resulting institution is a state member bank, and to supervise the operations of bank holding companies.

CHANGES IN PRACTICES As noted earlier, some of the original purposes envisioned for the System were to mobilize and concentrate bank reserves (including gold), to rediscount eligible paper, and to provide an elastic currency through the use of rediscounted eligible paper as collateral. The major instrument of monetary policy was to be the rediscount rate and little importance was foreseen for open market operations.

The first major breach of the eligible paper principle came when rediscounting was authorized for paper created to buy Treasury securities during World War I. This was repeated in a different form and in much larger amounts when the System bought for its own account huge amounts of Treasury securities during World War II. Open market operations were conducted in moderate amounts in the 1920's partly to provide earnings. In the early 1930's eligible paper declined drastically and almost disappeared from the Reserve Banks' assets, so it became necessary to authorize the use of Treasury securities as collateral for Federal Reserve notes.

Thus, in sharp contrast to the original intention, open market operations in United States securities, rather than changes in the discount rate, became the major instrument of monetary policy. United States securities, rather than eligible paper, now constitute by far the largest asset of the Reserve Banks, and are the principal collateral for Federal Reserve notes. Federal Reserve notes provide an elastic currency but they are elastic not because of the ebb and flow of eligible paper but because the Reserve Banks stand ready to issue them freely in accordance with the preference of depositors for currency rather than demand deposits. The Reserve Banks constitute a much more closely knit system and are subject to more coordination, supervision, and control than was originally contemplated.

Finally, the policy goals of the System are much broader, more numerous, and more complex than they were in the beginning. Instead of the modest goals of providing an elastic currency and "the accommodation of commerce, industry, and agriculture," the System now tries to follow policies which will help attain the broad economic goals of high level employment, highest sustainable rate of economic growth, general price stability, and a strong international position for the dollar.

Nonbank Financial Institutions

Nonbank financial institutions have become an increasingly important part of the financial structure of this country in recent years. The more important ones are savings and loan associations, mutual savings banks, life insurance companies, credit unions, pension funds, and sales finance companies. From 1945 to the end of 1963, assets of these institutions grew at an average rate of 9.4 per cent per year compared with 3.8 per cent for commercial banks. By the end of the period, their combined assets exceeded those of commercial banks by almost \$60 billion.

Nonbank financial intermediaries also provide a link between savers and the money and capital markets. In part, their rapid growth can be attributed to the substantial growth of savings of middle income groups, who are less inclined than upper income classes to invest in securities directly.

CREDIT UNIONS Credit unions have grown quite rapidly in recent years but are still comparatively small in relation to other financial institutions. They are co-operative self-help and loan societies composed of individuals bound together by some tie such as membership in a labor union, a church, or a fraternal order. "Members" purchase ownership "shares" resembling savings accounts, and each in turn may borrow from the association—a privilege not extended to nonmembers. Income from these loans and from investments provides funds from which dividends are paid.

Almost 90 per cent of credit union funds come from purchases of shares and most of the rest from retained earnings and reserves. About three fourths of these funds are placed in loans, principally consumer loans. Other assets include time deposits in banks, shares of insured savings and loan associations, Government securities, and high-grade municipal and corporate bonds.

MUTUAL SAVINGS BANKS Mutual savings banks collect and channel the savings deposits of small investors into mortgages, bonds, stocks, and other securities. These institutions, located primarily in New England and the Middle Atlantic States, are owned by their depositors, but are controlled by a self-perpetuating board of trustees.

Roughly 90 per cent of their funds come from savings deposits and most of the remainder from surplus and undivided profits. About 70 per cent of total

Table V

NONBANK FINANCIAL INSTITUTIONS	Assets (\$ billions)		Average Annual Growth Rates 1945-63
	1945	1963	
Institution			
Credit Unions	\$ 0.4	\$ 8.2	17.7%
Sales Finance Companies	0.4	19.7	23.6
Pension Funds (Private Noninsured)	2.8	46.6	16.9
Mutual Savings Banks	17.0	49.7	6.1
Savings and Loan Associations	8.7	107.4	15.0
Life Insurance Companies	44.8	141.1	6.6
Total Nonbank Financial Institutions ...	74.1	372.7	9.4
Commercial Banks	160.3	312.8	3.8

Sources: Board of Governors of the Federal Reserve System; Credit Union National Association; Institute of Life Insurance; Securities and Exchange Commission.

The Money Market

assets are invested in mortgages. Other earning assets include United States Government securities, corporate bonds and "blue-chip" stocks, municipal bonds, obligations of foreign governments, and miscellaneous loans.

SAVINGS AND LOAN ASSOCIATIONS Like mutual savings banks, savings and loan associations are involved primarily in channeling savings into residential mortgages. Savings of individuals, trust funds, and others account for about 85 per cent of their funds and most of the rest comes from reserves and undivided profits, and from borrowing from the Federal Home Loan Bank Board and others.

Approximately 85 per cent of these funds are placed in mortgages, about 6 per cent in United States Government securities, and the remainder in miscellaneous assets.

LIFE INSURANCE COMPANIES Although life insurance companies have existed for a long time, they have become increasingly important in recent decades. In 1914 their assets amounted to only 29 per cent of commercial bank assets; by the end of 1963 the figure was 45 per cent.

Some 81 per cent of their funds come from policyholders' savings in the form of policy reserves, and the remainder from bank loans, dividends accumulating at interest, capital and surplus, and miscellaneous sources. Life insurance companies invest in a wide variety of assets, but principally in mortgages and corporate bonds which make up about three fourths of their assets. Government securities, corporate stock, real estate, and policy loans make up most of the remainder.

SALES FINANCE COMPANIES Sales finance companies have had the highest rate of growth of all financial institutions in the postwar period—almost 24 per cent per year. About 37 per cent of their funds are raised by long-term borrowing, either from banks or through the sale of debentures in the capital market. Approximately one fourth comes from the sale of commercial paper and other short-term notes, and almost one fifth from short-term borrowing at banks. The remainder comes from net worth and miscellaneous liabilities. Loans, three fifths of which are automobile loans, make up about 90 per cent of their assets.

PENSION FUNDS Before World War II, private noninsured pension funds were relatively insignificant, but now have become quite important, especially in some sectors of the capital market.

Employer contributions provide roughly 65 per cent of total funds and employee payments about 9 per cent. The remainder comes from investment income and capital gains. Since cash inflow is set to provide funds to meet estimated cash outgo, funds can stay almost fully invested. Investments are concentrated in corporate securities which comprise roughly 82 per cent of total assets, about equally divided between stocks and bonds.

The money market today performs essentially the same function it did 50 years ago. It provides a mechanism through which various economic units may adjust their liquid asset positions in accordance with their particular needs. In short, it continues to provide a meeting ground for the demand and supply of short-term funds.

Although unchanged in purpose, the market is greatly changed in size, scope, participants, and instruments. Periods of rapid change accompanied the establishment of the Federal Reserve System, the economic changes wrought by the great depression, and the financing of World War II. Aside from these turbulent periods, however, the money market has not been a static institution; it has changed constantly in response to the economy's changing needs.

A very significant development in the past 50 years has been the growth in the national character of the market. Due to the improved payments mechanism instituted by the Federal Reserve and to improved communications generally, funds now tend to flow quickly from areas of surplus to areas of scarcity, binding the nation together into a single gigantic credit market.

INSTRUMENTS Perhaps the most pervasive change has been the marked shift in the relative importance of various instruments. The call loan, which was of primary importance in 1914, has now largely been replaced by other instruments, principally short-term Government securities. The shift was hastened in the 1930's as a result of legislation which tended to curtail bank participation in the call loan market. Margin requirements were instituted, banks were forbidden to act as agents for nonbank lenders in placing funds in the call market, and the prohibition of interest payments on demand deposits eliminated one of the reasons for holding bankers' balances in New York. As stock prices declined and the attractiveness of the call market waned, the sharp growth of the Federal debt resulting from deficit financing provided bankers with a suitable substitute.

Principal money market instruments today include Government securities maturing within one year, Federal funds (deposit balances at Federal Reserve Banks), loans to and repurchase agreements with Government securities dealers, bankers' acceptances, commercial paper, and negotiable certificates of deposit. Since information on the trading volume of some of these instruments is not available, it is impossible to list them precisely in order of relative importance. A listing by amounts outstanding, however, provides a useful clue.

Measured by number of holders, volume outstanding, volume of trading, and the uses they serve, short-term Government securities are clearly the most important instrument for the money market as a whole. The amount outstanding exceeded \$81 billion in mid-1964, and volume of trading averaged about \$1.2 billion per day. As a substitute for money, these securities are almost ideal. They yield a significant rate of return but involve no credit risk since

Table VI

MONEY MARKET INSTRUMENTS, MID-1964	Outstanding Value (\$ millions)	Daily Average Transactions June 1964 (\$ millions)
Short-term Governments	\$81,424	\$1,201
Certificates of Deposit	11,687	47
Commercial Paper	8,036
Dealer Loans and Repurchase Agreements	3,541
Bankers' Acceptances	3,149	42
Loans and Discounts at Federal Reserve Banks ¹	270
Federal Funds ²	1,682

¹ Daily average borrowings, June 1964.

² Daily average gross purchases, 46 major reserve city banks, June 1964.

Source: Board of Governors of the Federal Reserve System.

Table VII

OWNERSHIP OF SHORT-TERM FEDERAL GOVERNMENT SECURITIES	Mid-1964 (\$ millions)	Per Cent of Total
Federal Reserve Banks	\$18,029	22.1
U. S. Government Agencies and Trust Funds	1,822	2.2
Public		
Commercial Banks	14,549	17.9
Foreign Holders	7,866	9.7
Nonfinancial Corporations	7,688	9.4
State and Local Governments	6,108	7.5
Dealer Inventories	3,217	4.0
Insurance Companies	900	1.1
Mutual Savings Banks	829	1.0
Savings and Loan Associations	447	0.6
Others ¹	19,969	24.5
TOTAL	81,424	100.0

¹ Included with all other investors are those banks, insurance companies, savings and loan associations, corporations, and state and local governments not reporting in the Treasury's Survey of Ownership. Source: Board of Governors of the Federal Reserve System.

they are backed by the full faith and taxing power of the Federal Government. Also, their short maturities minimize the risk of price fluctuation associated with changing market conditions, and the existence of a broad, highly organized market insures easy and quick convertibility into cash.

Perhaps the most active short-term market is that for Federal funds, in which deposit balances of member banks at the Federal Reserve are "bought" and "sold," or borrowed and loaned. In June 1964, daily average gross purchases of 46 major reserve city banks which report Federal funds transactions amounted to \$1,682 million and gross sales averaged \$1,174 million. While this sub-market is first in volume of trading, the general significance of this is limited by the fact that its scope is comparatively narrow and highly specialized and the deals are made for only a day or two at a time.

There is also a large volume of activity in dealer loans and repurchase agreements. Dealers in Government securities carry their large inventories primarily on borrowed money and are normally in the market for a sizable volume of short-term funds. In search of low-cost money, dealers scour the country, tapping such sources as banks, corporations, and state and local governments. Borrowing may take the form of either a straight collateral loan or a repurchase agreement. In the latter case, the dealer sells securities to the lender and agrees to repurchase them at some specified future date at the same price plus interest at an agreed rate. In June 1964, average daily financing from all sources totaled \$3,541 million, of which \$1,493 million came from corporations, \$761 million from banks outside New York City, \$981 million from banks within the City, and \$307 million from other sources, principally state and local governments and the Federal Reserve.

A recent innovation in the money market has been the growing use of negotiable time certificates of deposit, as noted above. These certificates certify that a certain amount has been deposited with a bank for a specified period at an agreed rate of interest. Following the introduction of negotiable

certificates by New York City banks in 1961, a secondary market quickly developed and now a number of dealers stand ready to buy and sell these instruments at prices which change with money market conditions. In a period of about four years the volume of certificates of deposit outstanding grew from a negligible amount to over \$12 billion, and by mid-1964 daily transactions in these instruments averaged about \$50 million.

An even more recent development has been the sale by commercial banks of promissory notes, which are closely akin to finance company paper sold by the large sales finance companies. At least one dealer has announced an intention to make a market for these new obligations but ". . . a respectable volume of the new notes will have to be made available to dealer intermediaries before the market can take on workable dimensions"

Two instruments of ancient origin are still in use. These are commercial paper and bankers' acceptances. Substantial changes have taken place in both since 1914. In commercial paper, the most notable development has been the rise of finance companies which issue paper directly to investors instead of placing it through dealers. Directly-placed paper has grown rapidly and in mid-1964 the amount outstanding totaled \$6,088 million compared with a total of only \$1,948 million for paper placed through dealers. Another significant change has been the reduced relative importance of commercial banks in the commercial paper market. In 1914, banks held most of the paper outstanding, but today probably a majority is held by nonfinancial corporations.

Bankers' acceptances today are much more important than they were 50 years ago. At that time national banks and most state banks were forbidden by law to originate acceptances. This was changed by the Federal Reserve Act which empowered member banks to create acceptances under specified conditions. In other ways the Federal Reserve encouraged the development of a bankers' acceptance market, and it may be said for all practical purposes that such a market in the United States dates from the establishment of the Federal Reserve System. Since World War II the volume of acceptances outstanding has grown rapidly, reaching a total slightly in excess of \$3 billion in mid-1964. A secondary market is provided by five Government securities dealers who, as a side line, buy and sell acceptances at posted prices.

LEADING PARTICIPANTS Although commercial banks continue to be the most important participants in the market, their relative importance has probably diminished over time. This has been due partly to the increasing tendency of many economic units to participate in the market directly, instead of participating indirectly by depositing and withdrawing funds from banks.

A complete listing of participants is, of course, impossible, but the most important would include commercial banks, savings banks, savings and loan associations, insurance companies, state and local governments, Federal Government agencies and trust funds, the Federal Reserve System, Government securities dealers, international institutions, foreign governments and foreign banks, and nonfinancial corporations.

Although information is not available which would permit a ranking of these in order of importance, the nature of the banking business virtually insures that banks would stand in first place. Demand deposits, which may be withdrawn without notice at any time, frequently fluctuate within wide limits from day to day. Since a loss of deposits means an equivalent loss of reserves and a gain in deposits an equivalent reserve gain, banks often find themselves with deficient reserves one day and excess reserves the next.

Over the reserve averaging period, which is one week for reserve city banks

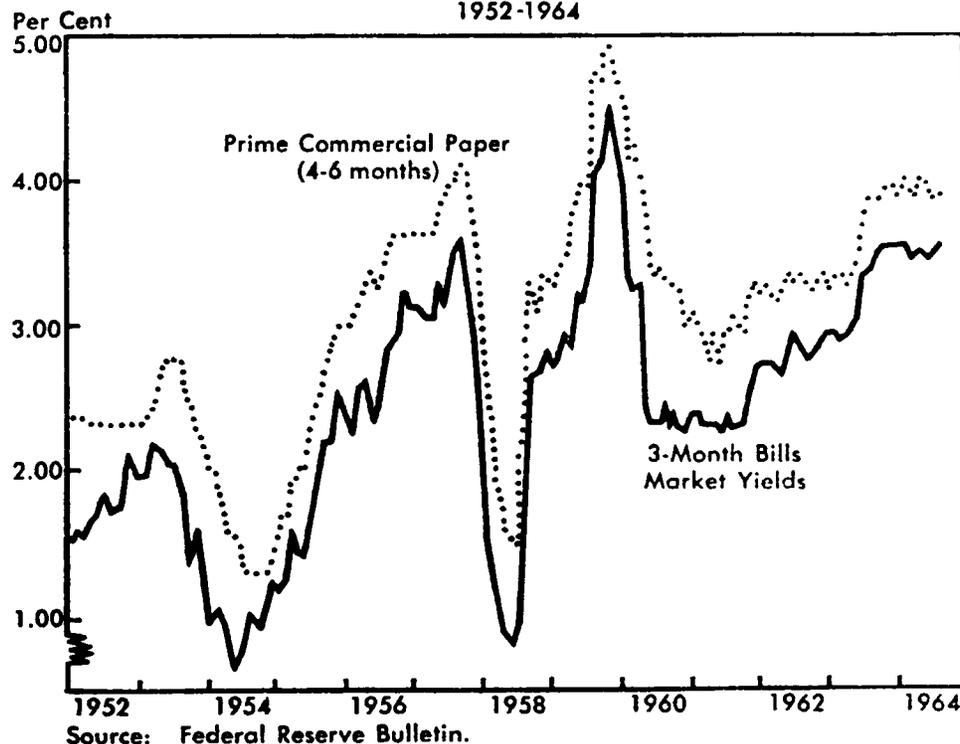
and two weeks for country banks, most bankers try to meet their reserve requirements as precisely as possible because reserve deficiencies are subject to penalties and excess reserves yield no income. In striving to end the reserve averaging period with excess reserves as near zero as possible, banks make constant adjustments in their reserve positions through the money market.

A number of alternatives are open. A bank may, for example, acquire additional reserves by selling Government securities, commercial paper, bankers' acceptances, or its own promissory notes. Also, it may borrow from the Federal Reserve or a correspondent, buy Federal funds, raise dealer loan rates to encourage dealers to refinance elsewhere, or attract additional funds by raising rates paid on time deposits. Some of these alternatives may not be available at a given time, but most banks have a fairly wide range of choice. The bank's choice obviously depends on many factors, the most important of which are, generally, cost and the length of time the additional funds are needed. If funds are needed for only a brief time a bank will probably be reluctant to sell short-term assets because of the cost involved in selling one day and buying back the next. Likewise, a bank will probably be reluctant to raise rates on time deposits because of the difficulties involved in lowering rates subsequently. Short-term adjustments, therefore, are generally made by reducing loans to dealers, borrowing from the Federal Reserve, or buying Federal funds. The alternatives, however, are sufficiently close substitutes that a large number of banks can shift back and forth from one sector of the money market to another, thereby keeping rates of return in the various sectors fairly well in line.

Although it is not possible to quantify precisely the degree of banks' participation in the money market, enough statistical information is available to demonstrate their overwhelming importance. For example, in mid-1964 banks held almost 18 per cent of the Federal debt maturing within one year and Government securities dealers reported that dealings with banks accounted for about

MONEY MARKET RATES

1952-1964



40 per cent of total dealer transactions. Members of the Federal Reserve System are responsible for an overwhelming majority of Federal funds trading and, of course, are the only institutions authorized to borrow from the Federal Reserve's discount window. They generally provide roughly half of dealer financing and hold almost half of total bankers' acceptances outstanding.

Among domestic participants, nonfinancial corporations are probably second in importance. Their activity in the market has increased substantially in recent years, partly because of their rising volume of internally generated funds and partly because rising interest rates have made the holding of idle cash quite costly. In managing their cash positions, corporate treasurers have become increasingly sophisticated in the use of techniques to project future cash flows and increasingly adept in selecting short-term investments and in switching from one to another to exploit changes in interest rate differentials.

To meet random and regular needs for cash, corporations typically hold sizable amounts of money market instruments, principally short-term Governments, commercial paper, certificates of deposit, and dealer loans. In preparation for such regular payments as taxes and dividends, corporations build up liquid assets having a specific maturity. Therefore, the United States Treasury, sales finance companies, commercial banks, and Government securities dealers tailor maturities of their instruments to fit the needs of their corporate customers.

Perhaps third in importance are the state and local governments which in recent years have been raising and disbursing ever larger sums of money. Since receipts are usually clustered at certain times (following tax dates and flotations of bond issues) while expenditures are generally spread more evenly over the course of the year, these governments frequently have funds in excess of immediate needs which they invest temporarily in the money market. Many governmental units also administer pension or retirement funds of considerable size.

INTERNATIONAL ASPECTS The United States money market is not solely a national market. Foreigners for various reasons choose to hold part of their dollar assets in short-term dollar instruments. Foreign participants include international institutions such as the International Monetary Fund and the International Bank for Reconstruction and Development; foreign governments and central banks; and various private holders such as foreign banks and nonfinancial corporations. Like domestic economic units, these foreign institutions hold only a limited amount of idle dollar balances and use dollar holdings in excess of current operating needs to buy short-term investments which yield income. As dollar balances increase or diminish in response to the ebb and flow of international transactions, foreigners (both public and private) adjust their liquid asset positions in the United States money market by buying or selling money market instruments as the occasion may demand.

The United States money market is almost entirely free of restrictions which limit the movement of funds to and from the country. This is equally true whether the owner is an American or a foreigner. The recently imposed Interest Equalization Tax, which is presumed to be temporary, does impose a restraint on the sale in this country of some foreign securities with maturities of three years or more. This affects primarily the capital market rather than the money market.

Since at any time a certain amount of "hot" money is always ready to move from one market to another in search of higher yields, interest rate differentials between major money markets are a matter of official concern. In recent years officials in this country have tried to keep United States money market rates in rough alignment with similar rates abroad to prevent an outflow of short-term capital which could worsen the United States' balance of payments and

conceivably diminish foreign confidence in the dollar. To achieve this end, the United States Treasury at strategic times has increased its borrowing in the money market to bolster short rates, and the Federal Reserve for its part has frequently supplied reserves in ways which tend to minimize downward pressure on domestic yields.

The potential impact of foreign operations on the money market is substantial. In mid-1964 foreigners held short-term claims payable in dollars amounting to almost \$22.9 billion. Of this amount \$7.3 billion was in the form of demand deposits, \$4.8 billion in time deposits, \$7.9 billion in Treasury bills and certificates, and \$2.9 billion in other money market instruments such as bankers' acceptances, commercial paper, and negotiable time certificates of deposit.

RELATION OF THE FEDERAL RESERVE TO THE MONEY MARKET There is a close relationship between the Federal Reserve's monetary policy function and the money market. The Federal Reserve can change conditions in the money market by supplying or withdrawing funds. The same operation also alters the reserve supply of the banking system and thereby affects the demand of commercial banks for money market instruments. An injection of additional funds is quickly reflected in declining yields on money market instruments and a withdrawal of funds in rising rates. Because all credit markets are closely related, these yield changes in the money market tend to be transmitted throughout the entire maturity range. Since cost and availability of credit are important factors influencing spending decisions, changes in monetary policy ultimately influence the level of economic activity. Thus, the money market is the first link in a chain of reactions connecting monetary policy and real output.

In the day-to-day execution of monetary policy, the Federal Reserve comes into contact with the money market in a very intimate way. Located in the heart of the financial district of New York, the Federal Reserve Bank of New York conducts open market operations for the whole System in accordance with a directive issued by the Federal Open Market Committee. The personnel charged with the responsibility of managing the System Open Market Account collect and evaluate a wealth of information about factors influencing money market conditions. These factors include the current level of bank reserves; the prospective level of bank reserves in the days immediately ahead; the distribution of reserves between money market banks and other banks; yields on various money market instruments at home and abroad; the volume of trading in such instruments as Federal funds, Government securities, bankers' acceptances, negotiable time certificates of deposit; the size of dealer inventories of various instruments; and dealer financing needs. An evaluation of these data provides System officials with a good idea as to the net demand for and supply of short-term funds emerging out of the economic process on a given day. In the light of these money market conditions, the manager of the System Open Market Account takes appropriate action to implement System policy.

Conclusion

Out of the kaleidoscope of change which has marked the past half century it may be possible to indicate a few which were basic and strategic—which make the present banking and financial system fundamentally different from the one which existed in 1914.

The structure of the banking system and its behavior pattern is one such change. Previously in the United States a period of prosperity brought with it a large increase in the number of banks. This was encouraged by very low capital requirements and a minimum of supervision over the establishment of new banks in many states. When prosperity was followed by depression, many of the new, small banks, operated by inexperienced personnel, failed, adding

substantially to other deflationary forces. In some cases this was sufficient to convert a depression into a panic.

Since the great purge of the banking system in the early 1930's this pattern has changed sharply. Perhaps the most striking change was a very great decline in the number of bank failures—almost to the vanishing point. For a country which had been plagued by recurrent waves of bank failures for more than a century, this was a most beneficial and welcome change. On the other end, despite a long period of prosperity, an unequalled rise in income, and a sharply increased rate of population growth, there was no rush to charter new banks. In fact, until the past three years there was a slight tendency for the number of banks to decline slowly. Undoubtedly this was due in considerable part to the rapid growth of branches which has brought the total number of banking offices back up to near where it was at the peak in 1922.

Several factors have been responsible for the changed pattern, among the more important of which were deposit insurance, the raising of minimum capital requirements for banks, stricter bank supervision and regulation, and more care in the chartering of new banks. Deposit insurance was a major landmark in American banking history. The insurance principle itself is important, but it could not have worked as well as it has, and might well have been impractical, without the improved level of bank supervision by all supervisory agencies. One important element of the better supervision has been the extension of some form of Federal supervision to most nonmember as well as member banks.

Another major change has been the greatly increased competition which commercial banks now encounter both in obtaining and in using their funds. This affects the banks more in their capacity as financial intermediaries than as creators of money. In some cases it amounts to a bypassing of the banks as bank customers practice "do-it-yourself" banking. Business and financial companies of many kinds accumulate large balances from heavy cash flows. By careful planning and projecting they have learned to tailor their working balances accurately to their needs. They then use the surplus in purchasing money market instruments, in making loans or repurchase agreements to Government securities dealers, or in other similar ways. In addition, savings institutions and other financial intermediaries compete aggressively for the savings of individuals and small business firms, frequently offering interest rates which commercial banks find it hard to match. Faced with these forms of competition, banks have turned to the use of certificates of deposit, subordinated debentures, and unsecured promissory notes in order to hold their own in the competition for funds. One spokesman for banking says that these developments have brought about ". . . the change of banking into a high-volume, narrow-profit business, with all its inherent risks."

The demand for business loans has been held down by heavy cash flows, the general practice of carrying smaller inventories, and by more careful cash budgeting which results in a more intensive use of working balances. Also, rates on business loans have been held down by keen competition from other sources. To find more adequate and more remunerative uses for their funds, banks have turned increasingly to real estate and consumer loans and to tax-exempt municipal securities for the employment of their funds. These far-reaching changes in methods of raising and using funds largely account for the changed complexion of bank balance sheets today.

Back of these changes in the commercial banking area are the changes in the Federal Reserve System and in the money market described in earlier sections. Altogether they produce a banking and financial system which bears little resemblance to that of 1914.

HIGHLIGHTS OF 1964

Earnings and Capital Accounts

Net earnings before payments to the United States Treasury rose to a record \$77,534,187.61 in 1964 from the 1963 level of \$62,842,503.34. Six per cent statutory dividends totaling \$1,528,499.41 were paid to Fifth District member banks, and \$99,005,588.20 was paid to the Treasury as interest on Federal Reserve notes.

Capital stock rose \$1,569,750.00 to \$26,139,400.00 as member banks increased their stockholdings by three per cent of the rise in their capital and surplus. The Bank's surplus account was reduced, however, to \$26,139,400.00—the level of its paid-in capital—in response to a new policy initiated by the Board of Governors.

Check Collection

Steps were taken at all three offices during 1964 to update or acquire additional high speed check handling equipment. Richmond, with two Burroughs B-275 systems, added core memory and two six-tape listers. Baltimore expects delivery on an additional IBM 1420 system early in 1965, and Charlotte replaced its IBM 1412 system with an IBM 1420 system in July.

Increasing use of high speed equipment made it possible to reduce employment in transit operations despite an 18% rise in city clearings and an 11% increase in country clearings at the Bank's three offices. At the Richmond office, about 90% of all country items are being processed on high speed equipment, and definite plans have been made to initiate high speed processing of city checks early in 1965. About 50% of city items and 90% of country items are now being handled high speed at the Baltimore Branch. At Charlotte, 65% of country items are being processed high speed, and clearing of city items with high speed equipment is scheduled to begin during January 1965.

The Coin Shortage

The persistent coin shortage created one of the most serious operating problems for the Bank this year. Throughout the year it was necessary to severely ration coin to District banks, and the Bank received comparatively few return coin shipments from commercial banks. Coin production at both the Philadelphia and Denver mints was expanded significantly, but there was relatively little improvement in the shortage. It is hoped that the problem will ease in 1965 as a result of the sharp step-up in production now scheduled and the retention of the 1964 date on all coins.

Change in the Discount Rate

Following approval by the Board of Governors, the Richmond Reserve Bank raised the discount rate on November 27 from 3½ per cent to 4 per cent. The move, which was taken by all twelve Reserve Banks during a one-week period, was aimed at countering possible capital outflows from this country as a result of the widening spread between interest rates in the United States and countries

abroad. The change was the first since July 1963, when the rate was increased from 3 to 3½ per cent.

During 1964 fourteen newly organized national banks became members of the Federal Reserve System. New member banks opening for the first time during the year were:

- January 21—Grundy National Bank, Grundy, Virginia
- January 27—Chesapeake National Bank, Towson, Maryland
- February 3—Fidelity National Bank, Arlington, Virginia
- April 3—Belair National Bank, Bowie, Maryland
- April 9—Guardian National Bank of Fairfax County, Springfield, Virginia
- May 1—Aberdeen National Bank, Aberdeen, Maryland
- May 4—Fairfield National Bank of Highland Springs, Highland Springs, Virginia
- June 15—American National Bank, Fredericksburg, Virginia
- July 9—Woodlawn National Bank, Alexandria, Virginia
- August 1—University National Bank, College Park, Maryland
- August 31—United Community National Bank, Washington, D. C.
- September 8—The First National Bank of Belle, Belle, West Virginia
- September 11—Monticello National Bank, Charlottesville, Virginia
- October 24—First National Bank of West Hamlin, West Hamlin, West Virginia

In the fall of 1964 Fifth District member banks elected George Blanton, Jr., President, First National Bank, Shelby, North Carolina, to a three-year term as a Class A director of the Richmond Reserve Bank. Mr. Blanton succeeds J. McKenny Willis, Jr., Director, Maryland National Bank, Easton, Maryland. Adrian L. McCardell, President, First National Bank of Maryland, Baltimore, Maryland, was elected by the Richmond Board of Directors to a three-year term at the Baltimore Branch, succeeding Harvey E. Emmart, Senior Vice President, Maryland National Bank, Baltimore, Maryland. Carl G. McCraw, President, First Union National Bank of North Carolina, Charlotte, North Carolina, was elected by the Richmond Board to succeed Joe H. Robinson, Vice President, Belk Stores Services, Inc., Charlotte, North Carolina, on the Charlotte Board. The Board of Governors appointed William B. McGuire, President, Duke Power Company, Charlotte, North Carolina, to a three-year term at the Charlotte Branch. Mr. McGuire succeeds Clarence P. Street, President, McDevitt & Street Company, Charlotte, North Carolina.

Three changes in the official staff occurred during the year. Wythe B. Wakeham, Assistant Cashier in the Money Department, retired from the Bank on November 1. In December Arthur V. Myers, Jr., was promoted from Assistant Cashier to Assistant Vice President, and Jack H. Wyatt was elected Assistant Cashier. Both Mr. Myers and Mr. Wyatt are on the Bank and Public Relations staff.

New Member Banks

Changes in Directors

Changes in Official Staff

SUMMARY OF OPERATIONS

Check Clearing & Collection	1964	1963
Dollar amount		
Commercial bank checks*	98,095,365,000	90,141,314,000
Government checks**	9,421,817,000	8,881,337,000
Other items	987,180,000	832,788,000
Number of items		
Commercial bank checks*	302,129,000	269,324,000
Government checks**	58,193,000	56,926,000
Other items	3,870,000	3,327,000
Currency & Coin		
Currency handled at all three offices		
Dollar amount	6,095,494,090	5,643,449,763
Number	928,145,558	883,489,584
Coin handled at all three offices		
Dollar amount	96,174,305	156,296,610
Number	1,206,089,149	1,675,621,095
Dollar amount of currency withdrawn for destruction	820,864,500	778,208,785
Dollar amount of currency burned at Richmond Reserve Bank.....	111,139,000	119,941,000
Daily average of currency burned here		
Dollar amount	434,137	472,209
Number	378,801	402,079
Discount & Credit		
Dollar amount		
Total loans made during year	5,512,538,400	5,956,024,000
Daily average outstanding	15,061,580	16,317,874
Number of banks borrowing during the year	102	97
Fiscal Agency Activities		
Marketable securities delivered or redeemed		
Dollar amount	6,694,596,621	6,028,332,182
Number	176,243	154,037
Coupons redeemed		
Dollar amount	98,601,038	95,411,068
Number	383,406	406,611
Savings bond issues (including reissue)		
Dollar amount	327,499,425	315,195,634
Number	7,793,624	7,270,893
Savings bond redemptions		
Dollar amount	384,416,970	365,947,512
Number	7,954,864	7,662,899
Depository receipts for withheld taxes		
Dollar amount	2,355,519,585	2,394,966,593
Number	837,886	794,168
Transfers of Funds		
Dollar amount	161,866,483,638	140,687,790,675
Number of transfers	264,614	234,189

*Excluding checks on this Bank.

**Includes postal money orders.

COMPARATIVE

CONDITION

ASSETS:	<u>DECEMBER 31, 1964</u>	<u>DECEMBER 31, 1963</u>
Gold certificate account	\$ 895,509,335.08	\$ 845,296,215.72
Redemption fund for Federal Reserve notes	133,364,850.00	117,529,535.00
TOTAL GOLD CERTIFICATE RESERVES	<u>1,028,874,185.08</u>	<u>962,825,750.72</u>
Federal Reserve notes of other banks	56,420,180.00	38,672,250.00
Other cash	8,661,450.13	9,012,572.85
Discounts and advances	13,855,000.00	2,854,000.00
U. S. Government securities:		
Bills	438,268,000.00	289,926,000.00
Certificates	-----	494,678,000.00
Notes	1,826,322,000.00	1,241,139,000.00
Bonds	382,449,000.00	325,206,000.00
TOTAL U. S. GOVERNMENT SECURITIES	<u>2,647,039,000.00</u>	<u>2,350,949,000.00</u>
TOTAL LOANS AND SECURITIES	<u>2,660,894,000.00</u>	<u>2,353,803,000.00</u>
Cash items in process of collection	666,004,788.33	588,826,970.10
Bank premises	4,884,719.71	5,106,576.07
Other assets	33,238,793.10	24,272,087.52
TOTAL ASSETS	<u><u>\$4,458,978,116.35</u></u>	<u><u>\$3,982,519,207.26</u></u>
LIABILITIES:		
Federal Reserve notes	\$3,010,111,595.00	\$2,703,309,890.00
Deposits:		
Member bank—reserve accounts	780,280,497.01	706,662,802.47
U. S. Treasurer—general account	56,781,775.78	79,381,427.35
Foreign	11,000,000.00	7,520,000.00
Other	10,075,861.15	8,073,593.22
TOTAL DEPOSITS	<u>858,138,133.94</u>	<u>801,637,823.04</u>
Deferred availability cash items	504,148,407.28	398,382,082.78
Other liabilities	34,301,180.13	5,480,461.44
TOTAL LIABILITIES	<u>4,406,699,316.35</u>	<u>3,908,810,257.26</u>
CAPITAL ACCOUNTS:		
Capital paid in	26,139,400.00	24,569,650.00
Surplus	26,139,400.00	49,139,300.00
TOTAL LIABILITIES AND CAPITAL ACCOUNTS	<u><u>\$4,458,978,116.35</u></u>	<u><u>\$3,982,519,207.26</u></u>
Contingent liability on acceptances purchased for foreign correspondents	\$ 6,140,000.00	\$ 4,319,300.00

STATEMENTS

EARNINGS AND EXPENSES

EARNINGS:	1964	1963
Discounts and advances	\$ 542,502.38	\$ 563,964.68
Interest on U. S. Government securities	90,899,833.80	75,645,680.58
Foreign currencies	317,400.76	95,994.62
Other earnings	21,022.49	17,251.30
TOTAL CURRENT EARNINGS	91,780,759.43	76,322,891.18
EXPENSES:		
Operating expenses (including depreciation on bank premises) after deducting reimbursements received for certain Fiscal Agency and other expenses	12,399,415.31	12,281,791.59
Assessments for expenses of Board of Governors	429,500.00	358,300.00
Cost of Federal Reserve currency	1,469,254.02	896,476.88
NET EXPENSES	14,298,169.33	13,536,568.47
CURRENT NET EARNINGS	77,482,590.10	62,786,322.71
ADDITIONS TO CURRENT NET EARNINGS:		
Profit on sales of U. S. Government securities (net)	42,609.98	20,748.73
All other	11,306.13	36,890.59
TOTAL ADDITIONS	53,916.11	57,639.32
DEDUCTIONS FROM CURRENT NET EARNINGS	2,318.60	1,458.69
Net additions	51,597.51	56,180.63
NET EARNINGS BEFORE PAYMENTS TO U. S. TREASURY	\$ 77,534,187.61	\$62,842,503.34
Dividends paid	1,528,499.41	1,391,692.85
Payments to U. S. Treasury (interest on Federal Reserve notes)	99,055,588.20	56,413,810.49
Transferred to surplus	-22,999,900.00	5,037,000.00
TOTAL	\$ 77,534,187.61	\$62,842,503.34
SURPLUS ACCOUNT		
Balance at close of previous year	49,139,300.00	44,102,300.00
Payments to U. S. Treasury (interest on Federal Reserve notes)	22,999,900.00	-----
Addition account of profits for year	-----	\$ 5,037,000.00
BALANCE AT CLOSE OF CURRENT YEAR	\$ 26,139,400.00	\$49,139,300.00
CAPITAL STOCK ACCOUNT		
(Representing amount paid in, which is 50% of amount subscribed)		
Balance at close of previous year	\$ 24,569,650.00	\$22,051,150.00
Issued during the year	1,619,650.00	2,552,250.00
	26,189,300.00	24,603,400.00
Cancelled during the year	49,900.00	33,750.00
BALANCE AT CLOSE OF CURRENT YEAR	\$ 26,139,400.00	\$24,569,650.00

FEDERAL RESERVE BANK OF RICHMOND

Directors (December 31, 1964)

	Edwin Hyde	Chairman of the Board and Federal Reserve Agent
	William H. Grier	Deputy Chairman of the Board
CLASS A		
	David K. Cushwa, Jr.	President, The Washington County National Savings Bank Williamsport, Maryland (Term expires December 31, 1965)
	Robert T. Marsh, Jr.	Chairman of the Board, First & Merchants National Bank Richmond, Virginia (Term expires December 31, 1966)
	J. McKenny Willis, Jr.	Director, Maryland National Bank Easton, Maryland (Term expired December 31, 1964) Succeeded by: George Blanton, Jr. President, First National Bank Shelby, North Carolina (Term expires December 31, 1967)
CLASS B		
	Robert Richardson Coker	President, Coker's Pedigreed Seed Company Hartsville, South Carolina (Term expires December 31, 1967)
	Robert E. L. Johnson	Chairman of the Board, Woodward & Lothrop, Inc. Washington, D. C. (Term expires December 31, 1966)
	Raymond E. Salvati	Consultant, Island Creek Coal Company Huntington, West Virginia (Term expires December 31, 1965)
CLASS C		
	Wilson H. Elkins	President, University of Maryland College Park, Maryland (Term expires December 31, 1965)
	William H. Grier	President, Rock Hill Printing & Finishing Company Rock Hill, South Carolina (Term expires December 31, 1966)
	Edwin Hyde	President, Miller & Rhoads, Inc. Richmond, Virginia (Term expires December 31, 1967)
MEMBER FEDERAL ADVISORY COUNCIL		
	John F. Watlington, Jr.	President, Wachovia Bank and Trust Company Winston-Salem, North Carolina (Term expires December 31, 1965)

FEDERAL RESERVE BANK OF RICHMOND

Officers

Edward A. Wayne
President

Aubrey N. Heflin
First Vice President

Robert P. Black
Vice President

J. Gordon Dickerson, Jr.
Vice President

Welford S. Farmer
Vice President and
General Counsel

Donald F. Hagner
Vice President

Edmund F. Mac Donald
Vice President

Upton S. Martin
Vice President

John L. Nosker
Vice President

Joseph M. Nowlan
Vice President and Cashier

B. U. Ratchford
Vice President and
Senior Adviser

Raymond E. Sanders, Jr.
Vice President

John G. Deitrick
Assistant Vice President

Stuart P. Fishburne
Assistant Vice President

H. Ernest Ford
Assistant Vice President

William B. Harrison, III
Assistant Vice President

John C. Horigan
Chief Examiner

Arthur V. Myers, Jr.
Assistant Vice President

James Parthemos
Assistant Vice President

Victor E. Pregeant, III
Assistant Vice President
and Secretary

Joseph F. Viverette
Assistant Vice President

J. Lander Allin, Jr.
Assistant Cashier

Clifford B. Beavers
Assistant Cashier

Edward L. Bennett
Examining Officer

John E. Friend
Assistant Cashier

Robert L. Miller
Assistant Cashier

Chester D. Porter, Jr.
Examining Officer

R. Henry Smart
Examining Officer

Jack H. Wyatt
Assistant Cashier

G. Harold Snead
General Auditor

Roger P. Schad
Assistant General Auditor

BALTIMORE BRANCH

Directors (December 31, 1964)

Joseph B. Browne	President, Union Trust Company of Maryland Baltimore, Maryland (Term expires December 31, 1965)
E. Wayne Corrin	President, Hope Natural Gas Company Clarksburg, West Virginia (Term expires December 31, 1965)
Leonard C. Crewe, Jr.	Chairman of the Board, Maryland Specialty Wire, Inc. Cockeysville, Maryland (Term expires December 31, 1967)
Harry B. Cummings	Vice President and General Manager Metal Products Division, Koppers Company, Inc. Baltimore, Maryland (Term expires December 31, 1966)
Harvey E. Emmart	Senior Vice President, Maryland National Bank Baltimore, Maryland (Term expired December 31, 1964) Succeeded by: Adrian L. McCardell President, First National Bank of Maryland Baltimore, Maryland (Term expires December 31, 1967)
Martin Piribek	Executive Vice President, The First National Bank of Morgantown Morgantown, West Virginia (Term expires December 31, 1967)
John P. Sippel	President, The Citizens National Bank of Laurel Laurel, Maryland (Term expires December 31, 1966)

Officers

Donald F. Hagner
Vice President

A. A. Stewart, Jr.
Cashier

B. F. Armstrong
Assistant Cashier

E. Riggs Jones, Jr.
Assistant Cashier

A. C. Wienert
Assistant Cashier

CHARLOTTE BRANCH

(December 31, 1964) **Directors**

Wallace W. Brawley Senior Executive Vice President
The First Commercial National Bank of South Carolina
Spartanburg, South Carolina
(Term expires December 31, 1967)

J. C. Cowan, Jr. Vice Chairman of the Board, Burlington Industries, Inc.
Greensboro, North Carolina
(Term expires December 31, 1965)

W. W. McEachern President, The South Carolina National Bank
Greenville, South Carolina
(Term expires December 31, 1966)

James A. Morris Dean, School of Business Administration, University of South Carolina
Columbia, South Carolina
(Term expires December 31, 1966)

G. Harold Myrick Executive Vice President and Trust Officer, First National Bank
Lincolnton, North Carolina
(Term expires December 31, 1965)

Joe H. Robinson Vice President, Belk Stores Services, Inc.
Charlotte, North Carolina
(Term expired December 31, 1964)
Succeeded by: Carl G. McCraw
President, First Union National Bank of North Carolina
Charlotte, North Carolina
(Term expires December 31, 1967)

Clarence P. Street President, McDevitt & Street Company
Charlotte, North Carolina
(Term expired December 31, 1964)
Succeeded by: William B. McGuire
President, Duke Power Company
Charlotte, North Carolina
(Term expires December 31, 1967)

Officers

Edmund F. Mac Donald Vice President	Stanhope A. Ligon Cashier	
Winfred W. Keller Assistant Cashier	Fred C. Krueger, Jr. Assistant Cashier	E. Clinton Mondy Assistant Cashier