

# The Federal Reserve System

## Purposes and Functions

Board of Governors  
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# Preface

The book, *The Federal Reserve System—Purposes and Functions*, has been completely rewritten for this, the sixth, edition. The revision has attempted to present a concise, up-dated account of the responsibilities and operating techniques of the System in the areas of monetary policy, banking and financial regulation, and international finance. While primarily a handbook of operations, the revision also includes some description of economic relationships, market structure, and the theoretical underpinnings of central banking, so as to provide the general reader with a better understanding of the role of the Federal Reserve in the Nation's economic and financial system. Many economic and financial texts, of course, are available to the student requiring a more elaborate economic background.

Stephen H. Axilrod, Adviser to the Board in the Office of Managing Director for Research and Economic Policy, was primarily responsible for the planning and preparation of the text. The actual writing was a collaborative effort of many members of the staff.

In the area of domestic monetary policy and regulation, Peter M. Keir, Adviser, Division of Research and Statistics, was the principal author, and Richard Puckett, Senior Economist in the Banking Section in the Division of Research and Statistics made a major contribution. The discussion of the Federal Reserve balance sheet and bank reserves was the principal responsibility of Helmut F. Wendel, Assistant Adviser, and Raymond Lombra, Economist, Government Finance Section, in the Division of Research and Statistics.

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# Monetary Policy and the Economy

## *Chapter One*

The aim of this book is to explain briefly how the Federal Reserve System fulfills its responsibilities in helping to achieve the Nation's economic and financial objectives. The System was established on December 23, 1913, when President Woodrow Wilson signed the Federal Reserve Act. As expressed by its founders, the original purposes of the System were to give the country an elastic currency, to provide facilities for discounting commercial paper, and to improve the supervision of banking.

From the outset, it was recognized that the original purposes of the System were in fact aspects of broader U.S. economic and financial objectives. Over the years, economic stability and growth, a high level of employment, stability in the purchasing power of the dollar, and reasonable balance in transactions with foreign countries have come to be recognized as primary objectives of governmental economic policy.

Such objectives have been articulated in many acts of Congress, including particularly the Employment Act of 1946. And the structure and functioning of the Federal Reserve System has been modified over the years by amendments to the original Federal Reserve Act, perhaps the most important of which were those set forth in the Banking Act of 1935.

## *Purposes and Functions*

The Federal Reserve contributes to attainment of the Nation's economic and financial goals through its ability to influence the availability and the cost of money and credit in the economy. As the Nation's central bank, it attempts to ensure that money and credit growth over the longer run is sufficient to provide a rising standard of living for all of our people. In the short run the Federal Reserve seeks to adapt its policies in an effort to combat deflationary or inflationary pressures as they may arise. And as a lender of last resort, it has the responsibility for utilizing policy instruments available to it in an attempt to forestall national liquidity crises and financial panics.

A sound financial structure is one essential ingredient of a growing and prosperous economy. This being so, the Federal Reserve has also been entrusted with many supervisory and regulatory functions. Among others, it has responsibility for the amount of credit that may be used for purchasing or carrying equity securities; it establishes the maximum interest rates that commercial banks that are members of the System may pay on savings and time deposits; it supervises State-chartered member banks, and regulates the foreign activities of all U.S. banks; it is responsible for administering the laws that regulate activities of bank holding companies; and it establishes the rules of disclosure as to credit charges and repayment terms ("truth in lending") to which all lenders of consumer credit must adhere.

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## **ROLE OF THE FEDERAL RESERVE IN GOVERNMENT**

Today most countries have institutions, commonly called central banks, to perform functions broadly similar to those of the Federal Reserve System. In England, for example, it is the Bank of England, which has been in existence since the end of the 17th century; in France, it is the Bank of France, established in 1800 by Napoleon I; in Canada, it is the Bank of Canada, which began operations in 1935. Central banks throughout the world have varying degrees of independence within their governments, depending on the economic, political, and historical circumstances surrounding their establishment and subsequent development.

Often it is said that the United States has an independent central bank. This is true in the sense that decisions of the Federal Reserve

do not have to be ratified by the President or one of his appointees in the executive branch of the Government. But the Federal Reserve must report to Congress, and thereby to the people as a whole, on its policies. All appointments to the Board that governs the Federal Reserve System are made by the President by and with the consent of the Senate, and the President designates two members of the Board to be the Chairman and Vice-Chairman, respectively. In view of these circumstances and of the fact that the Federal Reserve works within the framework of the over-all objectives of economic and financial policy established by the Government, a more accurate description of the System's role is to characterize it as "independent within Government."

In modern economies it is understood that central banks and other instrumentalities of the Government will work together to encourage economic growth and well-being and to combat inflationary and recessionary tendencies as they emerge. Inflation is a form of taxation that falls on those least able to cope with it. Because the rising prices of goods and services that characterize inflation mean that dollars can buy less, the real value of savings held and of income earned by the mass of our people is reduced. Moreover, in an inflation, speculative excesses are encouraged; these excesses can divert resources away from uses most productive to society and can lead to economic imbalances and recession.

Recessions, in contrast, result in extensive waste of both human and economic resources because those who wish to work cannot find gainful employment in a reasonable period of time. Standards of living are depressed. In general, the Nation produces below its potential.

As it carries out its responsibilities, the Federal Reserve is in continuous contact with other policy-making bodies of the Government. The Chairman of the Board of Governors represents the Federal Reserve in policy discussions within the Government. He appears before Congress—particularly before the Senate and House committees dealing with banking and related matters, and the Joint Economic Committee—to report on Federal Reserve policies, the System's view about the state of the economy, and other matters. He meets frequently with the President of the United States, and he often confers with the Secretary of the Treasury. In addition, he participates, with the Secretary of the Treasury, the Chairman of the Council of Economic Advisers, and the Director of the Office of Management and Budget, in evaluations of economic conditions and objectives. The

## *Purposes and Functions*

Chairman has also been called upon from time to time to serve on a number of Government-wide policy bodies, including the Committee on Interest and Dividends (as Chairman), the Cost of Living Council (as Adviser), and the Emergency Loan Guarantee Board.

In addition to serving in areas of largely domestic operations, the Chairman of the Board of Governors is a member of the National Advisory Council on International Monetary and Financial Problems of the U.S. Government, which includes the heads of other U.S. agencies that make foreign loans or engage in foreign financial transactions. As a member of the U.S. delegation in key international conferences, he sets forth the central bank's view on matters of international financial and economic policy. And in late 1972 he was appointed an alternate governor of the International Monetary Fund.

Other members of the Board of Governors also participate actively in governmental discussions. These include domestic and international matters that cover issues ranging from the coordination of policies with respect to ceiling rates of interest on time and savings deposits as they affect banks and other thrift institutions to the formulation of U.S. positions in international negotiations on such matters as reform of the international monetary system. At scheduled intervals, the Board as a whole meets with the Council of Economic Advisers.

Members of the Board's staff, too, are in close touch with their counterparts in the Government. A luncheon meeting with senior staff of the Treasury is generally held each week; these luncheons are sometimes attended by the Chairman of the Board of Governors or perhaps another Board member and by the Under Secretary of the Treasury for Monetary Affairs. There is also continuous, informal contact with staffs of such agencies as the Office of Management and Budget and the Council of Economic Advisers on relevant economic matters, and with those of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Federal Home Loan Bank Board on relevant regulatory and legal matters.

The Federal Reserve has found that its continuing contacts within the Government contribute to its ability to undertake monetary and regulatory policies in the light of as accurate an assessment as possible of the likely course of the many governmental and private policies that affect the economy. For instance, governmental tax and expenditure policies bear critically on economic performance, as does also the Government's policy regarding the exchange value of the dollar internationally. Government credit policies that affect housing, small

## *Monetary Policy and the Economy*

business, agriculture, or exports also influence the economy generally. The wage and price policies of business enterprise clearly affect the Nation's economic well-being. And finally, economic activity depends importantly on a multitude of other private and public decisions, many of which are, in varying degrees, independent of monetary and fiscal policies—related as they often are to such factors as the timing of technological innovations, wars and other emergencies, and the public's mood and state of confidence. As this indicates, monetary policy is only one of many influences affecting the economy.

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### *MONETARY POLICY AND THE ECONOMY*

The Federal Reserve System necessarily operates within the general framework of national goals and objectives established within the legislative and executive branches of Government. In the economic sphere, the Federal Reserve helps to achieve the Nation's economic goals through its influence on the availability and cost of bank reserves, bank credit, and money. As will be explained later, the central bank can affect the availability of reserves to support bank deposits. This is done through its open market operations—purchases and sales for its own account of securities, mainly securities issued by the U.S. Government—and by its authority to vary reserve requirements. In addition, the discount rate set by Federal Reserve Banks, after review and determination by the Board of Governors, directly affects the cost of reserves borrowed by member banks from their Federal Reserve Bank; and this cost, together with administrative rules governing member bank access to Reserve Bank credit, affects the total amount of such borrowing.

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### *FINANCIAL EFFECTS OF POLICY ACTIONS*

Changes in bank reserves influence, first, the ability of banks to expand loans and investments, and as effects spread, conditions in financial markets generally. For example, if the Federal Reserve adds to member banks' monetary reserves, the banks will generally seek to

## *Purposes and Functions*

acquire new loans and investments, which will tend to exert downward pressure on interest rates. At the same time that banks are buying securities or making loans, they will be adding to the deposits of the public. The public's willingness to hold the deposits is, in turn, influenced by the level of interest rates that is emerging in the market.

Monetary policy actions also affect financial institutions other than banks, for as rates of interest on market instruments change, the public may seek to hold more or less of its savings at depository institutions such as mutual savings banks and savings and loan associations. At the same time mortgage and other long-term markets will be affected as lenders and borrowers adjust to changes in the level of, and outlook for, interest rates.

Monetary policy, however, is not the only influence on credit markets. If the economy is expanding vigorously and demands for credit are strong, interest rates will tend to rise, even though monetary policy actions may be adding substantially to bank reserves. Under such circumstances, the existing demands for credit, money, and bank reserves will be exceeding the supply; and demands will be brought into balance with supply through changes in the price of credit and money—that is, through changes in the levels of interest rates.

Interest rates are also influenced by expectational factors. Attitudes of investors and borrowers may be shaped by a variety of influences, including the outlook for future business activity, the pace of technological change, and interest rate developments in major markets abroad. One of the most important expectational influences in recent years has been attitudes toward inflation. In periods when the public has expected significant future price increases, interest rates have generally remained relatively high, or have risen. One reason for this is that investors have demanded an inflation premium for making their funds available in assets that carry a fixed rate of return. Another is that borrowers have been willing to pay an interest rate premium for the use of money if they believed that prices, incomes, and the costs of real investments would continue to rise.

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## *IMPACTS ON ECONOMIC ACTIVITY*

Spending by various economic sectors and the levels of economic activity are influenced by changes in credit conditions and financial

liquidity induced in part by monetary policy. Businessmen's decisions to expand their investment in plant and equipment depend to a degree on interest rates. While prospective sales, profits, and wage costs are key factors in such decisions, some businesses will postpone some investment programs when interest costs for financing long-lived assets rise relative to the prospective return on plant and equipment. Financial conditions—the extent of business liquidity, the availability of credit from banks and other sources, and short- and medium-term interest rates—also affect the spending of businesses for working capital assets, particularly for inventories.

Another sector that is highly sensitive to changes in credit conditions is the mortgage market, and through it, private spending for construction purposes. For example, at times over the last decade or so, homebuilding has appeared to bear an undue share of the burden of credit restraint. Because borrowing costs are an important part of the total ongoing costs of housing investment, changes in interest rates and other mortgage terms naturally can be expected to have a significant impact on the demand for housing. Since the mid-1960's, however, several episodes of credit restraint appear to have had a disproportionate influence on housing because of sharp declines in the volume of funds available to prospective mortgage borrowers.

The availability of mortgage credit is strongly influenced by inflows of funds to banks and other savings institutions, and these inflows are very sensitive to the relationship between interest rates on market instruments and interest rates offered on time and savings deposits. Rates offered on such deposits tend to move sluggishly. On the up side they are constrained by regulatory ceilings; the extent to which these ceilings can be raised has been constrained because the interest income on earning assets that these institutions hold changes relatively slowly. As a result, inflows of savings to these institutions tend to accelerate as market rates of interest fall and to decelerate as such rates rise. Over time, however, institutional changes are reducing to some degree the sensitivity of the supply of mortgage credit to changes in monetary policy. These institutional changes include enhanced Federal support to the mortgage market through the credit-supplying activities of various housing agencies and increased marketings by savings institutions of time certificates with relatively long maturities.

Spending on consumer goods, particularly durable goods bought on credit, is also influenced by changing monetary and credit conditions. Instalment credit terms have an impact on decisions to buy

## *Purposes and Functions*

autos, furniture, and other long-lasting products. The liquidity position of consumers also at times appears to influence their spending. And there are indications that changes in the total value of financial asset holdings—common stocks and bonds being the most volatile elements—have an impact on the willingness of consumers to spend for goods and services.

Thus, spending by private sectors of the economy—and to a degree also the capital expenditures of State and local governments—is influenced by shifts in monetary policy. However, impacts on spending occur only with some lag. It takes time for businesses to alter their spending plans, and even more time for changes in plans to affect actual outlays. In the housing market, to give another example, changing credit and monetary conditions have an impact first on the mortgage commitment policies of lending institutions, then on housing starts, and ultimately on residential construction expenditures.

The length of these lags varies with economic conditions and with the particular type of spending involved, but experience suggests that a change in monetary policy ordinarily cannot be expected to begin to affect economic activity significantly for about 6 months, with the total cumulative effect spread over many more months. Sometimes announcement and expectational effects may accelerate the impact of such a change.

Experience also indicates that monetary policy affects the real output of goods and services sooner than it affects the average level of wage rates and prices. The economy seems to adjust initially to changes in monetary and credit conditions through changes in production and in buying plans. Effects on prices develop more slowly, as wage negotiations and business pricing policies are adjusted belatedly to changes in the level of resource utilization, to past changes in costs and prices, and to other factors.

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## *FINANCIAL GUIDES FOR MONETARY POLICY*

Since the instruments of monetary policy affect conditions in a wide range of financial markets, and since the impact of policy is felt more rapidly and directly in financial markets than in over-all markets for goods and services, it is important to decide which aspects of financial conditions should be taken as principal guides in judging

whether monetary policy at any moment is correctly attuned to its ultimate objectives. There has been a continuing debate about this for a number of years both inside and outside the Federal Reserve System.

Some have advocated interest rates as the principal guide for monetary policy in the belief that an interest rate guide can be related more dependably to current and prospective expenditures by key sectors of the economy, and hence to the ultimate economic objectives of full employment, reasonable price stability, and international competitiveness. Others have advocated growth in one or more measures of the money stock, since they believe that control of the money stock will more surely and predictably lead to the over-all economic effects that are desired. Still others have taken an eclectic position; they believe that no one financial variable can or should be taken as a unique guide to monetary policy in view of the complexity of the economy, the wide variety of financial influences on spending, and the changing—sometimes rapidly changing—attitudes of businessmen, investors, and consumers toward spending and liquidity.

In recent years the Federal Reserve has been placing somewhat more emphasis than it did earlier on monetary aggregates, including the money stock, as a guide in its monetary policy actions. But the Federal Reserve has recognized—in line with the eclectic view taken by most people who have had to deal with monetary problems around the world—that judgments must continuously be made as to the appropriateness of over-all financial conditions, including interest rates, the liquidity positions of institutions and the public, and the psychological factors affecting the flow of credit. In addition, as the Nation's central bank, the Federal Reserve must be well aware of its role as lender of last resort, because it is of critical importance to the health of the economy that financial panics and disorders be averted.

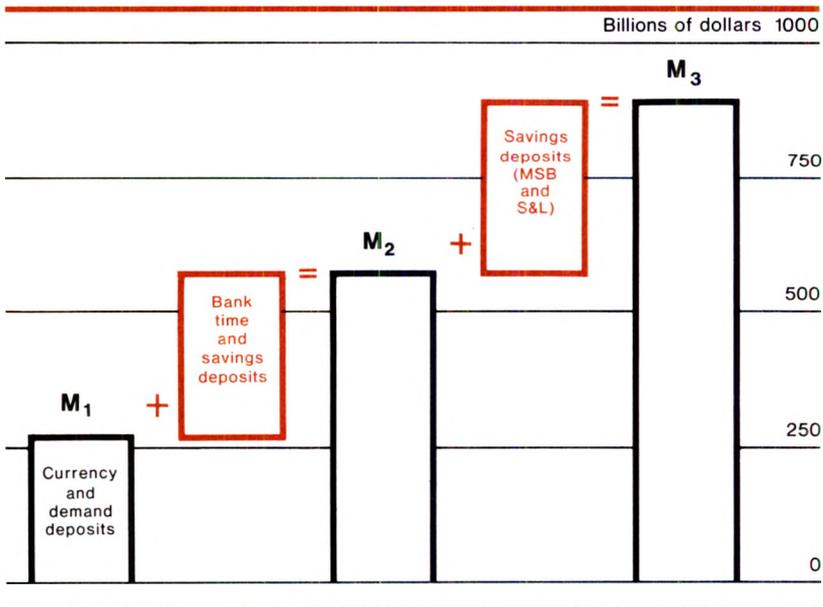
An emphasis on monetary aggregates—for example, an effort to maintain a generally moderate growth in the money stock—has the advantage of providing a built-in adjustment for unexpected and undesired shifts in the demand for goods and services. If the money stock were kept growing at a predetermined pace, interest rates would rise if demands for goods and services turned out to be excessive relative to the available supply of real resources. This rise in interest rates would, in turn, tend to dampen excessive demands. Conversely, with a given rate of monetary growth, interest rates would decline if demands for goods and services proved to be weak relative to economic objectives.

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An approach that places heavy emphasis on desired and actual rates of growth of the money stock as a policy guide, nevertheless, poses a number of problems—some practical and some theoretical. For one thing, it is not clear how best to define money. For another, past experience fails to give clear guidance as to optimal rates of growth of money.

Economists have not been able to agree on the best definition of money. The Federal Reserve publishes three definitions, and it takes all of them into account in evaluating policy. The three measures are: (a) money narrowly defined ( $M_1$ ) encompassing only currency and demand deposits held by the nonbank public; (b) money more broadly defined ( $M_2$ ) including also time and savings deposits at banks, other than large negotiable time certificates of deposit (CD's);

**CHART 1**  
MEASURES OF MONEY STOCK — December 1973



$M_1$ : Averages of daily figures for (1) demand deposits of commercial banks other than domestic interbank and U.S. Govt., less cash items in process of collection and F.R. float; (2) foreign demand balances at F.R. Banks; and (3) currency outside the Treasury, F.R. Banks, and vaults of commercial banks.

$M_2$ : Averages of daily figures for  $M_1$  plus savings deposits, time deposits open account, and time certificates other than negotiable CD's of \$100,000 of large weekly reporting banks.

$M_3$ :  $M_2$  plus the average of the beginning- and end-of-month figures for deposits of mutual savings banks and for savings capital of savings and loan associations.

and (c) a broader definition ( $M_3$ ), including as well savings deposits at mutual savings banks and savings and loan associations. Clearly, a still broader definition that has economic meaning would encompass other liquid assets, such as large negotiable time CD's, U.S. savings bonds and Treasury bills, and prime commercial paper.

The important point is that there are many assets closely related to cash, and that the public can readily switch between cash and these other liquid assets. Much of the time, switches are in response to changing interest rate differentials. At other times though, the switches may reflect a growing awareness of ways to increase current income, or they may simply reflect shifting attitudes of the public. For example, over the post-World-War-II period corporations have become increasingly aggressive in managing their cash positions, with a view to maximizing interest earnings. Shifting preferences for money as variously defined and between money and other financial assets, however prompted, have at times complicated the already difficult task of determining how much of an increase in money would most likely be consistent with maintenance of high employment and reasonable price stability.

Those who advocate the behavior of interest rates as a principal guide to policy do so partly because changes in interest rates can have more clearly definable economic results and partly on the grounds that no one can be certain just how strong demands for cash and near-cash liquidity will be relative to income. With interest rates as a guide, any sudden shift toward greater demands for liquidity for a given level of income—because of either domestic or international uncertainties—would lead the Federal Reserve to provide more bank reserves. If the System did not provide the reserves, interest rates would rise as the public sold marketable assets in an effort to obtain cash. And in that event the rise in interest rates would tend to hold economic activity below desired levels.

Monetary policy decisions inevitably involve a joint consideration of conditions affecting demands for goods and services and those influencing demands for cash and liquidity. How the instruments of monetary policy are used, adapted, and coordinated in light of these decisions and to achieve policy objectives is discussed in Chapters 4 and 5.

Before that discussion, however, there are two chapters describing first, the organization of the Federal Reserve System and the services

### *Purposes and Functions*

it provides to the member banks, and second, the statement of condition of the Federal Reserve Banks and the variety of factors (including System actions) that influence bank reserves. The sixth chapter discusses the operations of the Federal Reserve in the international sphere. The final chapter deals with the Federal Reserve's regulatory and supervisory functions. □

# Structure of the Federal Reserve System

## *Chapter Two*

The Federal Reserve System is a relatively complex organization. Its principal components, in addition to the roughly 5,800 banks that were members in mid-1974, are three bodies that have responsibility for making and executing monetary policy. These three are the Board of Governors, the Federal Open Market Committee, and the Federal Reserve Banks. Their main responsibility is to regulate the flow of credit and money, but they also perform important supervisory and service functions for the public, the U.S. Treasury, and the commercial banks.

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### *BOARD OF GOVERNORS*

The apex of the Federal Reserve's organization is the Board of Governors in Washington. The Board's prime function involves the formulation of monetary policy. In addition the Board has broad supervisory and regulatory responsibilities over the activities of commercial banks and the operations of the Federal Reserve Banks.

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As noted below, the members of the Board constitute a majority of the Federal Open Market Committee, which is the most important policy-making body in the monetary area. In addition to functioning as a part of the Open Market Committee, the Board establishes the reserve requirements for member banks, reviews and approves discount rate actions of the Federal Reserve Banks, issues regulations governing the administration of the discount window at those Banks, establishes ceiling rates of interest that member banks may pay on time and savings deposits, and sets margin requirements on credit purchases in the stock market.

The Board also has broad supervisory and regulatory responsibilities over the activities of member banks, including their foreign activities, and the operations of the Federal Reserve Banks. It also administers the law that regulates activities of bank holding companies.

The Board is an agency of the Federal Government. It consists of seven members appointed by the President of the United States and confirmed by the U.S. Senate. Board members are appointed for terms of 14 years, and their terms are so arranged that one expires every 2 years. A member may not be reappointed after having served a full term. The Chairman and Vice Chairman of the Board are named by the President of the United States from among the Board members for 4-year terms and may be redesignated.

The Board submits an annual report to the Congress, and it makes available detailed statistics and other information relating to the System's activities through a variety of publications such as the monthly Federal Reserve *Bulletin*. Expenses incurred by the Board in carrying out its duties are not defrayed out of appropriated funds but are paid out of assessments upon the Reserve Banks. Each year a public accounting firm of national prominence audits the Board's accounts.

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## *FEDERAL OPEN MARKET COMMITTEE*

Open market operations are the principal instrument used by the Federal Reserve to implement national monetary policy. According to statute the Federal Open Market Committee (FOMC) is responsible for determining what transactions the Federal Reserve will conduct in the open market. Through frequent buying and selling of U.S.

Government securities, the securities of Federal agencies, or bankers acceptances, the Manager of the System Open Market Account provides or absorbs bank reserves in keeping with the instructions and directives issued by the Committee. In addition to operations in the domestic securities market, the FOMC authorizes and directs operations in foreign exchange markets for major convertible currencies.

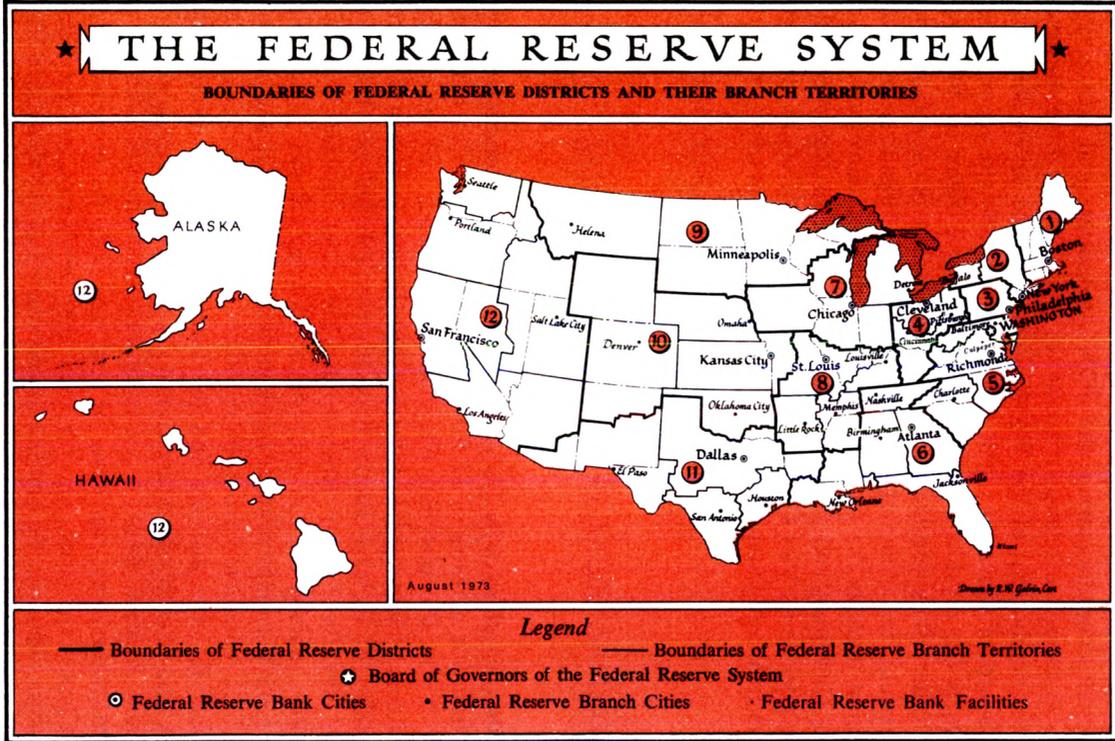
The membership of the FOMC comprises the seven members of the Board of Governors and five Reserve Bank presidents, one of whom is the president of the Federal Reserve Bank of New York. The other Bank presidents serve 1-year terms on a rotating basis. By statute, the Committee determines its own organization, and by tradition it elects the Chairman of the Board of Governors to serve as its Chairman and the president of the Federal Reserve Bank of New York as its Vice Chairman. The Committee meets in the Board's offices in Washington every 4 or 5 weeks throughout the year.

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## ***FEDERAL RESERVE BANKS***

The operations of the Federal Reserve System are conducted through a nationwide network of 12 Federal Reserve Banks located in Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco. Branches of Reserve Banks have been established in 24 additional cities, and the Federal Reserve also has other facilities around the country, mainly for the purpose of clearing checks. The Board's offices in Washington are a headquarters-type facility, and no operations are conducted from those offices. The boundaries of the 12 Federal Reserve districts and the locations of the various Reserve Bank and branch offices are shown on the accompanying map.

Each Reserve Bank is an incorporated institution with its own board of directors, consisting of nine members. As provided by law, the Class A directors, who represent member banks, and the Class B directors, who are engaged in pursuits other than banking, are elected by the member banks in each Federal Reserve district. The Board of Governors appoints the three Class C directors, and it designates one of the three as Chairman and another as Deputy Chairman of the Bank's board. No Class B or Class C director may be an officer,



director, or employee of a bank; in addition, Class C directors are prohibited from being stockholders of a bank. Each branch of a Reserve Bank has its own board of directors of five or seven members. A majority (three or four, as the case may be) is appointed by the head-office directors, and the others by the Board of Governors.

The directors of each Reserve Bank oversee the operations of their Bank under the over-all supervision of the Board of Governors, and they establish, subject to approval by the Board, the interest rates that the Bank charges on short-term collateral loans to member banks and on any loans that may be extended to nonmember institutions. The directors appoint, and recommend the salaries of, the Bank's president and first vice president, subject to final approval by the Board.

Earnings of the Federal Reserve Banks are derived primarily from interest received on their holdings of securities acquired through open market operations and on their loans to member banks. Such earnings go first to the payment of expenses (including assessments by the Board of Governors to defray its expenses), the statutory 6 per cent dividend on Federal Reserve stock required to be purchased by member banks, and any additions to surplus necessary to maintain each Reserve Bank's surplus equal to its paid-in capital stock. Remaining earnings are then paid into the U.S. Treasury. More than 80 per cent of the Reserve Banks' earnings have been paid into the Treasury since the Federal Reserve System was established. Should a Reserve Bank be liquidated, its surplus—after all obligations had been met—would become the property of the U.S. Government.

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### *FEDERAL ADVISORY COUNCIL*

The Federal Reserve Act provides for a Federal Advisory Council consisting of one member from each Federal Reserve district. The board of directors of each Bank annually selects one Council member, usually a prominent banker of the district. The Council is required by law to meet in Washington at least four times a year. It confers with the Board of Governors on economic and banking matters and makes recommendations regarding the affairs of the Federal Reserve System.



## ***OTHER ADVISORY COMMITTEES***

In dealing with many policy and operating problems that call for a coordinated approach within a decentralized organization, the System makes use of a number of conferences and committees that help to reach an understanding on common problems. Of these the most important are the Conferences of (1) the Chairmen, (2) the Presidents, and (3) the First Vice Presidents of the Federal Reserve Banks. The first of these Conferences meets at the Board's offices in Washington once or twice a year. The other Conferences hold some of their meetings at other Federal Reserve offices; they usually meet at least four times each year. Another important group is the Advisory Committee on Truth in Lending; this Committee meets from time to time, at the call of the Board. In addition, various staff-level committees have been established that draw upon specialists from around the System.

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## ***MEMBER BANKS***

In mid-1974 about 5,800 commercial banks—out of a total of some 14,000 in the country—were members of the Federal Reserve System. These members accounted for 79 per cent of all bank deposits, a proportion that has been declining since the late 1950's. National banks, which are chartered by the Comptroller of the Currency, an official of the Department of the Treasury, are required by law to be members of the System. Banks chartered by any of the 50 States may elect to become members if they meet the requirements laid down by the Board of Governors. The member banks own all of the stock of the Reserve Banks. However, ownership of that stock, which is a legal requirement of membership, does not carry with it the usual attributes of control and financial interest.

When banks join the Federal Reserve System, they become eligible to use all of the System's facilities. At the same time they undertake to abide by certain rules, prescribed by law or developed by regulation in accordance with the law, for the protection of the public interest.

### ***OBLIGATIONS***

Banks that become members of the Federal Reserve System must assume several important obligations: They must maintain sufficient monetary reserves to meet the requirements established by the Board of Governors under the law; such reserves may be either deposits at their Reserve Bank (such deposits do not draw interest) or cash in their own vaults. They must remit at par for checks drawn against them when presented by a Reserve Bank for payment. And they must comply with various Federal laws, regulations, and conditions of membership regarding the adequacy of capital, mergers with other banking institutions, establishment of branches, relations with bank holding companies, interlocking directorates, loan and investment limitations, and other matters. If the member bank is chartered by a State, it is subject to general supervision and examination by the Federal Reserve System.

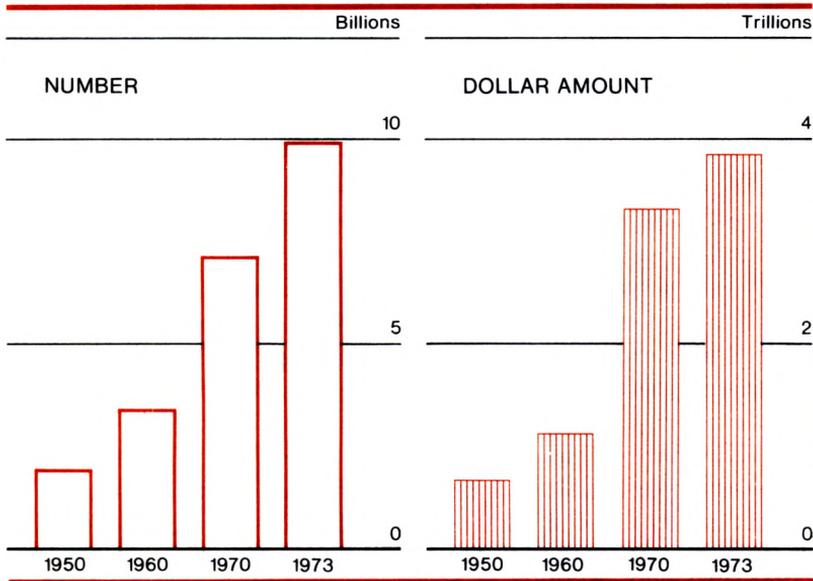
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### ***BENEFITS OF MEMBERSHIP***

The privileges of membership in the System are several. For example, member banks may (1) borrow from the Federal Reserve Banks when temporarily in need of additional funds, subject to criteria for such borrowing (customarily called discounting) set by statute and regulation; (2) use Federal Reserve facilities for collecting checks, settling clearing balances, and transferring funds by wire to other cities; (3) obtain currency as needed; (4) share in the informational facilities provided by the System; and (5) participate in the election of six of the nine directors of the Federal Reserve Bank for their district. The terms and circumstances under which a member bank may borrow from its Federal Reserve Bank are described in Chapter 5. Other Federal Reserve services provided for member banks are described below.

The volume of checks handled by Federal Reserve Banks has grown rapidly in recent years. In 1973 the Reserve Banks cleared about 10 billion of the estimated 26 billion checks drawn on banks in the United States. Those checks not handled by the Federal Reserve are cleared by local clearinghouse associations, by large correspondent

**CHART 3**  
CHECKS HANDLED BY RESERVE BANKS



Figures exclude checks of the U.S. Govt. and postal money orders.

banks, or by direct local exchange. Settlement among banks for these check exchanges is often effected through the reserve accounts of member banks.

To reduce the time required to clear checks through the check collection system, the Federal Reserve has implemented a Regional Check Processing Centers program. This program has resulted in the establishment of Federal Reserve check-clearing offices in seven additional locations, and in a sharp increase in the number of checks cleared on an immediate-credit basis—from 19 per cent prior to the program to 56 per cent by the end of 1973.

The expense and complexity of processing and transporting the enormous volume of paper checks has prompted the banking industry to begin the establishment of a paperless electronic means of transferring funds. The formation of automated clearing houses (ACH's) is one method that is being used to transfer funds without requiring paper checks. These ACH's make possible the exchange of payments—such as for payrolls and dividends—through electronically processable media. The ACH computer processes the transfers, and these

## *Purposes and Functions*

are delivered to recipient banks for posting to customer accounts. In 1973 the Federal Reserve operated three ACH's.

The Federal Reserve also makes available to member banks a computer-based communications system that can be used to transfer funds from one part of the country to another swiftly and efficiently. All such transfers are made through debits or credits to member bank reserve accounts held at the Reserve Banks. Funds transferred on this network are immediately available to the receiving member bank upon receipt of an advice. Member banks may also use the communications system to transfer funds to and from specific customer accounts by providing the necessary information in the transfer request. The System's communications facilities permit member banks to lend their excess reserves to banks that are experiencing temporary reserve deficiencies. The market that brings banks together in such transactions is called the Federal funds market.

The System's communications facilities may also be used to transfer marketable Government securities. Trading in these issues is very active, and transfer of ownership typically involves large-denomination certificates payable to bearer; in many instances such securities are held in the Reserve Banks for safekeeping. Serious problems may be encountered from time to time in the physical transfer of such securities between banks and dealers and between dealers and other investors and in the storage of these securities. To help resolve such problems, the Federal Reserve Banks and the Treasury have instituted a computerized book-entry system by which ownership of U.S. Treasury and certain Federal agency securities is recorded on the books of the Federal Reserve Banks, and transfers may be effected without the necessity of transporting the securities. Use of the Federal Reserve's communications system in combination with the book-entry system provides an efficient and secure method of transferring ownership of Government and agency securities and for making interest payments.

In addition, the Reserve Banks provide facilities in which member banks may deposit certain noncash items for collection, such as notes, drafts, warrants, coupons, and bonds.

Virtually all paper currency and coin moves into and out of circulation through the Federal Reserve Banks. Sometimes (for example, before a major holiday), banks are called on to pay out more cash than they receive; at other times (for example, after such a holiday), they receive more cash than they pay out. When member banks have

to replenish their cash supply, they order currency and coin from their Reserve Bank and have their reserve accounts charged. On the other hand, when currency on hand exceeds prospective needs, the member banks forward such excess to their Reserve Bank for credit to their reserve accounts. Generally, the larger member banks service the needs of nonmember banks for currency.

Nearly all of the Nation's circulating currency—some 90 per cent of it—is issued by the Federal Reserve Banks in the form of Federal Reserve notes. All such notes are obligations of the U.S. Government as well as of the Federal Reserve Banks and must be fully collateralized by Federal Reserve holdings of Government securities, gold certificates, Special Drawing Rights certificates,<sup>1</sup> or certain other types of assets. Paper currency, including Federal Reserve notes, is produced by the U.S. Treasury's Bureau of Engraving and Printing in Washington, D.C. New coins are struck at the Treasury's Bureau of the Mint facilities in Philadelphia, Denver, and San Francisco.

In addition to these services, the Federal Reserve provides—to member banks and the public at large—a variety of informational services, such as publications covering a wide range of local and national financial and economic statistics and descriptive and analytical materials relating to the Nation's economy and the System's activities.

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## *FISCAL AGENCY FUNCTIONS*

In addition to their role in carrying out monetary and regulatory policy and in providing services to ensure a smooth flow of money and credit in the economy, the 12 Federal Reserve Banks act as the Government's principal fiscal agents. They hold Treasury checking accounts, receive applications from the public for the purchase of securities being sold by the U.S. Treasury, allot the securities among bidders, deliver securities, collect payment from the buyers, redeem securities, make wire-transfers of securities to other cities, make denominational exchanges of securities, pay interest coupons, and con-

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<sup>1</sup> For description see p. 29.

### *Purposes and Functions*

duct transactions in the market for various Treasury accounts. Most of these activities are under the general supervision of the Treasury, which reimburses the Reserve Banks for most fiscal agency functions.

In addition, the Reserve Banks perform fiscal agency services in connection with the financial activities of various Federal or Federally sponsored credit agencies. They are reimbursed by the Treasury or other Government agencies for much of the expense incurred. The Federal Reserve Bank of New York also performs some fiscal agency functions for foreign central banks and other foreign official and international accounts, such as handling and safekeeping their investments in Treasury and similar securities and holding part of their gold stock under earmark custody for their account. □

# Federal Reserve Operations and Commercial Bank Reserves

## *Chapter Three*

Federal Reserve operations, as stated in Chapter 1, directly affect member bank reserve positions, and this effect initiates a series of financial responses through which policy influences the economy. Thus, bank reserves can be said to be a fulcrum for the operation of monetary policy.

This chapter explains the basic factors affecting member bank reserves. Some factors, such as changes in the System's holdings of securities, are under the control of the Federal Reserve and they reflect monetary policy actions, whereas others, such as changes in the System's gold certificate holdings or currency in circulation, respond to decisions made outside the Federal Reserve and thus do not directly reflect monetary policy actions. A brief explanation of the consolidated balance sheet of the Federal Reserve Banks and of what is known as the "bank reserve equation" will illustrate how the various factors interact to determine the reserve position of the member banks.

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**CONSOLIDATED BALANCE SHEET  
OF THE RESERVE BANKS**

The consolidated balance sheet of the 12 Federal Reserve Banks reflects a broad range of functions that these Banks perform. This balance sheet, known as the statement of condition of the Federal Reserve Banks, is one of the most complete statements of its kind, and it is released every Thursday to show the condition of the

**TABLE 1**  
STATEMENT OF CONDITION OF THE FEDERAL RESERVE BANKS  
Wednesday, May 16, 1973

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	Millions of dollars
<b>ASSETS</b>	
1. GOLD CERTIFICATE ACCOUNT	10,303
2. SPECIAL DRAWING RIGHTS CERTIFICATE ACCOUNT	400
3. Cash	316
4. LOANS	2,445
5. SECURITIES:	
a. Bought outright	76,386
b. Held under repurchase agreement	1,467
6. CASH ITEMS IN PROCESS OF COLLECTION	10,530
7. Bank premises and other assets	739
Total assets	<u>102,586</u>
<b>LIABILITIES</b>	
8. FEDERAL RESERVE NOTES	59,156
9. DEPOSITS:	
a. Member bank reserves	27,631
b. U.S. Treasurer—General account	4,925
c. Foreign	333
d. Other	644
10. DEFERRED AVAILABILITY CASH ITEMS	7,189
11. Other liabilities, including accrued dividends	894
Total liabilities	<u>100,772</u>
<b>CAPITAL ACCOUNTS</b>	
12. Capital paid in	815
13. Surplus	793
14. Other capital accounts	206
Total liabilities and capital accounts	<u>102,586</u>

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Reserve Banks at the end of the preceding day.<sup>1</sup> The statement then appears in the Friday issue of principal daily newspapers of the country, usually accompanied by explanatory comment.

The purpose of the consolidated balance sheet of the Federal Reserve Banks is to provide an accounting summary of all phases of Federal Reserve operations and to record in some detail the primary uses of Federal Reserve credit. Inasmuch as the Nation's demand for money converges on commercial banks, especially the member banks, and through them on the Reserve Banks, much can be learned about current banking and financial trends by following changes in the principal items of the statement from week to week.

The balance sheet in Table 1 is a condensed form of the statement for May 16, 1973.<sup>2</sup> The most important items on it are printed in capital letters. Explanation of the components provides both an introduction to many important points made in other chapters and an opportunity to mention some technical aspects of Federal Reserve operations not otherwise dealt with.

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## **MAJOR ASSET ACCOUNTS**

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### **1. Gold Certificate Account**

The monetary gold stock of the United States consists of gold held by the U.S. Treasury and gold in the Exchange Stabilization Fund maintained by the Treasury. Most changes in the gold stock result from purchases of gold from, or sales to, foreign monetary authorities. Recently, however, the dollar value of the gold stock was

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<sup>1</sup> The Wednesday reporting date for the consolidated balance sheet ties in with the accounting period of commercial banks that belong to the Federal Reserve System. These banks operate on what is commonly referred to as a state-week ending Wednesday—that is, one for the period Thursday through Wednesday. The member banks use this accounting period to determine their reserve position under the Federal Reserve regulations.

<sup>2</sup> As the purpose here is a general explanation of the balance sheet, some of the less important components are not discussed. For a detailed review of all items in the balance sheet readers may consult: *Glossary: Weekly Federal Reserve Statements*, Federal Reserve Bank of New York, September 1972, 23 pp.

## *Purposes and Functions*

increased as a result of changes in the par value of the dollar, which were legislated in 1972 and 1973. The result of these two changes was an increase of \$2.0 billion in the value of the U.S. gold stock. Major changes in the country's monetary gold stock are usually reflected, as will be brought out below, in the Federal Reserve GOLD CERTIFICATE ACCOUNT.

Since 1934 the laws of the United States have prohibited the public circulation of either gold coin or gold certificates—paper money that represents a claim on gold held by the Treasury. Nevertheless, the Federal Reserve Banks may still own gold certificates. As of May 16, 1973, the date in Table 1, their holdings amounted to \$10.3 billion, and on June 30, 1974, they were \$11.5 billion.<sup>3</sup>

The System's gold certificate assets are increased whenever the Treasury monetizes gold that it has purchased from foreign monetary authorities or issues new gold certificates following an increase in the par value of gold and thus in the value of the outstanding gold stock. To see how changes in the gold certificate account affect the consolidated balance sheet, assume that the Treasury buys \$100 million of gold from a foreign monetary authority. The Treasury will pay for the gold by drawing a check on its balance at the Reserve Banks (item 9.b). Suppose the foreign government deposits this check in a U.S. commercial bank. When the commercial bank collects this check, there will be a \$100 million increase in member bank reserve deposits (9.a). In order to replenish its cash balance, the Treasury issues \$100 million of gold certificates to the Reserve Banks, which in turn credit \$100 million to the Treasury's balance with them (9.b). This pair of transactions will result in an increase of \$100 million on both the assets side and the liabilities side of the Reserve Banks' balance sheet.

If \$100 million of gold certificates are issued by the Treasury to the Reserve Banks in consequence of an increase in the official price

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<sup>3</sup> Gold certificate holdings serve as reserve assets for inter-district settlements. Inter-regional payments involve shifts in deposit accounts of member banks and of the Treasury at individual Reserve Banks, and final settlements are accomplished by the transfer of gold certificate credits from one Reserve Bank to another.

On Aug. 15, 1974, the President signed a bill that amends the Par Value Modification Act and that authorizes U.S. citizens to own, buy, or sell gold as of Dec. 31, 1974 (or at any time prior to that date if the President finds and reports to Congress that the private ownership of gold would not adversely affect the U.S. international monetary position).

of gold, the gold certificate account will be increased by that amount and the Treasury's balance at Reserve Banks will be credited initially. However, member bank reserves will subsequently increase by \$100 million as the Treasury, in the normal course of fiscal operations, draws down its balance to pay for the goods and services the Government buys from the public.

At present, there are no legal minimum ratios for the gold certificate holdings of Federal Reserve Banks in relation to either their deposit or their note liabilities; none have existed, in fact, since March 1968.<sup>4</sup> Long before that time, however, the gold reserve ratio had lost whatever significance it once may have had as a regulator of national monetary policy.

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## *2. SDR Certificate Account*

A Federal Reserve asset item closely related to the gold certificate account is the SPECIAL DRAWING RIGHTS CERTIFICATE ACCOUNT. SDR's (Special Drawing Rights in the International Monetary Fund) are created by the Fund on agreed occasions and are allocated to members of the Fund in accordance with an accepted formula—but without any payment by them—to serve as a supplement to the international monetary reserves of the members of the Fund. They may then be transferred, somewhat like gold, from one national monetary authority to another.

SDR's received by the U.S. Government are first placed in the Exchange Stabilization Fund by the Treasury. From time to time the Treasury may monetize SDR's by issuing SDR certificates to the Reserve Banks. When this occurs, the SDR certificates thus acquired by the Banks are credited to the SDR certificate account. Since the first SDR's were created in 1970, the Federal Reserve Banks' reserve assets have included small amounts of SDR certificate credits.

Transfers of SDR's to and from the monetary authorities of other countries, against payment in dollars, have up to now been made only in small volume. These transfers have utilized unmonetized SDR's, or have added to the Stabilization Fund's holdings, without

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<sup>4</sup> Although statutory minimum gold reserve requirements against Federal Reserve Bank liabilities and Federal Reserve notes (the so-called gold cover) were abolished on Mar. 3, 1965, and Mar. 18, 1968, respectively, it is still true that each Reserve Bank must maintain collateral equal to the amount of its Federal Reserve notes outstanding. Eligible collateral includes gold certificates, SDR certificates, U.S. Government securities, and collateral received in making loans.

## *Purposes and Functions*

effect on the Federal Reserve Banks' holdings of SDR certificate claims, which have remained unchanged at \$400 million from April 1970 to the time of this writing.<sup>5</sup>

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### *3. Cash*

Cash represents only the amounts of currency issued by the Treasury that the Reserve Banks hold; most of these holdings are in the form of coin. Although each Reserve Bank may hold Federal Reserve notes issued by other Reserve Banks, such notes cancel out in a consolidated statement of condition for the System as a whole.

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### *4. Loans*

LOANS represent the amount of Federal Reserve credit that member banks and others obtain at their own initiative—secured by U.S. Government or Federal agency obligations, by eligible commercial, agricultural, or industrial paper, or by other assets—and for which they incur a repayment obligation. As is explained in Chapter 4, about one-half of these borrowings from Federal Reserve Banks represent short-term advances secured by U.S. Government and Federal agency securities. This reflects in part the large role of such securities among bank assets, and in part the great convenience of using them as collateral. All borrowing by member banks against such securities or against eligible paper is done at the established discount rate. Members may also borrow against any other assets satisfactory to their Reserve Bank by incurring an additional charge of  $\frac{1}{2}$  percentage point above the Reserve Bank's regular discount rate. Federal Reserve Bank loans to member banks are governed by the Board's Regulation A.

The Reserve Banks may also make other types of loans; these too must conform to regulations prescribed by the Board of Governors. One type is loans to individuals, partnerships, and corporations (including nonmember banks) secured by U.S. Government and Federal agency obligations. Another type involves discounting of eligible

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<sup>5</sup> Total Treasury holdings of SDR's by the Treasury's Exchange Stabilization Fund on May 16, 1973, the date used in Table 1, amounted to \$1,949 million, of which \$400 million was obligated to the SDR certificate account held by the Reserve Banks. On that same date the total U.S. gold stock was \$10,487 million, of which \$10,303 was obligated to the gold certificate account; the remainder—unmonetized—was held by the U.S. Treasury (\$107 million) and by the Exchange Stabilization Fund (\$77 million).

paper for individuals, partnerships, and corporations in unusual and exigent circumstances. Both types bear an interest charge higher than the basic discount rate. Yet another form represents loans to foreign monetary authorities secured by gold; such loans are made at the prevailing discount rate.

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### *5. Securities*

The System's portfolio comprises mainly U.S. Government securities (Treasury bills, notes, and bonds) and obligations of Federal agencies. Federal Reserve transactions in these securities, commonly referred to as open market operations, are conducted by the Federal Reserve Bank of New York on behalf of the FOMC for the joint account of the 12 Reserve Banks. The securities portfolio of the Reserve Banks is distributed among the individual Reserve Banks according to a formula. In addition, the Federal Reserve Bank of New York conducts for its own account operations in bankers acceptances and operations in the form of repurchase agreements, in both Treasury and Federal agency issues; these operations, too, are under the direction of the FOMC.

Since Reserve Bank purchases and sales of authorized securities are the principal means by which the Federal Reserve can affect the volume of Reserve Bank credit and member bank reserves at its own initiative, changes in Reserve Bank holdings of these securities are watched closely by observers in the credit markets. A breakdown of holdings, by type of security, is shown each week in the published statement. (Repurchase agreements are described on page 64.)

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### *6. Cash Items in Process of Collection*

CASH ITEMS IN PROCESS OF COLLECTION are checks and other cash items (for example, U.S. postal money orders and Federal food stamp coupons) that have been deposited with the Federal Reserve Banks as of the date of the statement for collection by the Banks on behalf of commercial banks—either members or nonmembers. The item has a counterpart in an account—Item 10, deferred availability cash items—on the liability side of the statement. Items in process of collection always exceed the amount of deferred availability items, because many checks that the Reserve Banks present for collection are not actually collected within the time schedule for

## *Purposes and Functions*

crediting member bank reserve accounts to which the Reserve Banks must adhere by regulation—at present a 2-day maximum time schedule. The difference between these two accounts yields a measure of a type of Federal Reserve credit called “float,” which the Reserve Banks generate in rendering collection services to member banks; float is further explained on pages 33 and 34.

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### *7. Bank Premises and Other Assets*

The item “Bank premises and other assets” includes—in addition to bank premises—interest accrued, and various other items of minor importance. At times it has included substantial holdings of convertible foreign currencies acquired under “swap” agreements with foreign central banks, as is brought out in Chapter 6.

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## *MAJOR LIABILITY ACCOUNTS*

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### *8. Federal Reserve Notes*

FEDERAL RESERVE NOTES, which are liabilities of the Reserve Banks, are the principal type of U.S. currency in circulation. As noted in Chapter 2, they constitute about 90 per cent of the total.

Changes in the amount of Federal Reserve notes in circulation occur seasonally and cyclically in accordance with changing demands of the public for currency and of member banks for vault cash. The public meets its immediate needs for currency by cashing checks at commercial banks. The member banks in turn require vault cash to accommodate the needs of their own customers and also the vault cash and customer needs of nonmember banks. They obtain the currency for these purposes by drawing down their reserve balances at Reserve Banks; when their needs decline, they dispose of any excess currency by depositing it in their reserve accounts.

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### *9. Deposits*

The major portion of the DEPOSITS in Federal Reserve Banks represent the reserve accounts of member banks. The aggregate of mem-

ber banks' deposit balances at Federal Reserve Banks and of their vault cash constitutes the reserve base of the banking system.

The second most important category of Reserve Bank deposit liabilities comprises the deposit accounts of the U.S. Treasury. The Treasury draws on these accounts to make payments by check for all major types of Government spending. The Treasury also maintains deposit accounts—commonly known as tax and loan accounts—with approved commercial banks for receiving taxes and the proceeds of securities sold to the public. The Treasury's established practice is to maintain large enough balances in its checking accounts at the Reserve Banks to meet all near-term payment obligations. Hence, it transfers funds from its accounts in commercial banks into its Reserve Bank accounts in accordance with anticipated payments. Also, whenever the Treasury's total account at the Reserve Banks exceeds desired working levels, the excess may be redeposited in its tax and loan accounts at commercial banks.

By allowing the bulk of the changes in its total cash balance to occur in tax and loan accounts, the Treasury moderates the effect on bank reserves of fluctuations in its receipts and payments. If the Treasury were to permit its deposits at the Federal Reserve to fluctuate widely, this would cause large swings in the banks' reserves; net payments out of the accounts would provide deposits—and simultaneously, reserve funds—to member banks, while net receipts in the accounts would represent funds drained from member banks.

Deposits of foreign central banks and governments are the third category of deposit liabilities at the Reserve Banks. These deposits are maintained with the Federal Reserve Bank of New York, but all Reserve Banks share in the deposit liability. They represent working balances held by foreign authorities for purposes of international settlement. Such deposits are usually small, but they may fluctuate in the very short run at times when foreign central banks are buying or selling dollars in their exchange markets.

The fourth category, "other" deposit liabilities, includes deposits of some Government agencies and of international organizations of which the United States is a member, and miscellaneous deposits.

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#### *10. Deferred Availability Cash Items*

As mentioned on page 31, DEFERRED AVAILABILITY CASH ITEMS are the counterpart of the asset account Item 6—cash items

## *Purposes and Functions*

in process of collection. Deferred availability items arise because the Federal Reserve Banks do not give immediate credit to the deposit account of the collecting bank for all checks deposited with them for collection. The credit is deferred according to a schedule that allows time for out-of-town checks to go through the mail or by other transfer media to the banks on which they are drawn. As stated in the explanation of Item 6, the maximum period for deferral of credit is presently two business days. After such period, the member bank's reserve account is automatically credited.

Since the time actually taken to collect a check may be longer than that allowed in the schedule, this crediting often occurs before the account of the bank on which the check is drawn is debited. The difference between the asset account (cash items in process of collection) and the liability account (deferred availability cash items) represents checks that—although not yet collected by the Reserve Banks—have previously been credited to the reserve accounts of the banks that deposited them.

As already noted, this difference, which is sometimes sizable, is called "float." It measures the amount of Federal Reserve credit generated by the national check-collection process and available to the member banks. The application by Reserve Banks of electronic technology to check clearance at regionally located check-processing centers is now working to speed up check settlement. This will gradually reduce the volume of both the asset and liability items and also of Federal Reserve float.

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### *11. Other Liabilities, Including Accrued Dividends*

The item "Other liabilities, including accrued dividends" includes unearned discount, discount on securities, and miscellaneous accounts payable.

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## *CAPITAL ACCOUNTS*

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### *12. Capital Paid In*

When a bank is admitted to membership in the Federal Reserve System, it must subscribe to capital stock of the Reserve Bank

of its district an amount equal to 6 per cent of its own capital stock and surplus. Of this amount, 3 per cent must be paid in, and 3 per cent is subject to call by the Board of Governors. The shares do not carry the same power through voting to control the management of the Reserve Bank as does ordinary stock in private banks or corporations. Member banks are entitled by statute to a cumulative dividend of 6 per cent per annum on the value of their paid-in stock. Ownership of Reserve Bank stock may not be transferred, nor may the owning bank hypothecate its shares.

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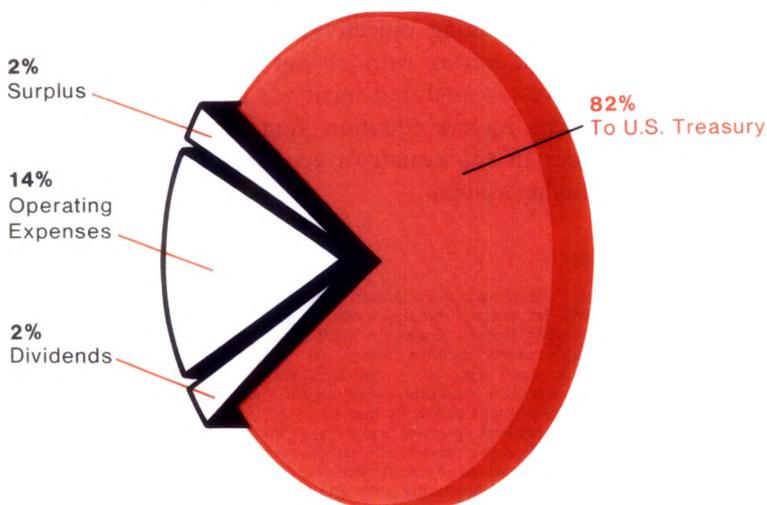
**13. and 14. *Surplus, and Other Capital Accounts***

The surplus account represents retained net earnings of the Reserve Banks, while the other capital accounts represent the unallocated net earnings for the current year to the date of the statement. The Reserve Banks may draw on their surplus to meet deficits and to pay dividends in years when operations result in loss, but they may not distribute it otherwise to the stockholding member banks. As previously noted, and as Chart 4 shows, by far the major part of all

**CHART 4**  
DISPOSITION OF FEDERAL RESERVE BANK EARNINGS

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EARNINGS 1914-73 = \$41,971 MILLION



## *Purposes and Functions*

Federal Reserve Bank earnings over the years have been paid into the U.S. Treasury. Net earnings of the Federal Reserve Banks in 1973 amounted to \$4,441 million. Of this total, \$4,341 million was paid to the Treasury.

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## *BANK RESERVE EQUATION*

Since the Federal Reserve Banks are not operated for profit, profit considerations have no effect on the amount of credit they extend. The amount of Federal Reserve credit is determined primarily by the monetary policy pursued by the Federal Reserve authorities in the public interest. Actions to implement Federal Reserve monetary policy increase or decrease the availability, and also the cost, of bank reserves—and thereby influence the supply and cost of bank credit and money in the economy.

In order to promote its monetary policy objectives, the Federal Reserve conducts operations, such as purchases of securities, partly in response to movements in other factors that cause increases or decreases in bank reserves. Unless there is some offsetting action, these other factors can affect the ability of banks to lend or invest and to expand the money stock and bank credit in a manner not consistent with the prevailing objectives of monetary policy. How Federal Reserve credit varies with changes in these other factors affecting bank reserves is analyzed most easily by combining all of these factors in a bank reserve equation. Items in the equation reflect the numerous forces in the country's economic life that affect the activities of the banking system.

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### NOTES TO TABLE 2:

<sup>1</sup> U.S. Govt. securities, Federal agency obligations, and bankers acceptances.

<sup>2</sup> Line 4 does not give the exact June figure for quantity of currency held outside the Federal Reserve and member banks, because it includes a timing discrepancy. In meeting their weekly reserve requirements, member banks use vault cash holdings as of 2 weeks earlier. Hence, currency in vault (line 8b) is timed to show data on this lagged basis. To preserve the balance in the reserve equation, these lagged vault cash figures were subtracted from total currency in circulation to arrive at line 4.

<sup>3</sup> Ordinarily, the sum of required reserves and excess reserves would equal member bank reserves as shown on line 8. For the periods chosen, however, a transitory reserve deficiency allowance was in effect under which Federal Reserve Banks waived penalties on reserve deficiencies for a transition period beginning with changes in Regulation J, effective Nov. 9, 1972. These waivers amounted to \$166 million in June 1973 and \$428 million in December 1972; these amounts are included in excess reserves as shown above.

NOTE.—Details may not add to totals because of rounding.

Most of the factors in the equation come from the consolidated balance sheet of the Federal Reserve Banks, reviewed in the first part of this chapter; but some represent Treasury monetary accounts, such as the gold stock and an account that reflects the issuance of currency

**TABLE 2**  
**BANK RESERVE EQUATION**  
 Averages of daily figures, in millions of dollars

	Amounts, June 1973	Change from December 1972
<b>I. SOURCES (Factors supplying reserve funds):</b>		
1. Reserve Bank credit outstanding	80,547	3,696
a. Security holdings <sup>1</sup>	75,446	4,261
b. Loans	1,788	739
c. Float	2,371	-1,108
d. Other assets	942	- 196
2. Monetary reserves	10,810	
a. Gold stock	10,410	
b. Special Drawing Rights certificates	400	
3. Treasury currency outstanding	<u>8,518</u>	<u>225</u>
<b>TOTAL SOURCES</b>	<b>99,875</b>	<b>3,921</b>
<b>II. USES (Factors absorbing reserve funds):</b>		
4. Currency in circulation outside Federal Reserve and member banks	<sup>2</sup> 61,523	1,558
5. Treasury holdings of currency	386	36
6. Deposits (other than member bank) held by Federal Reserve Banks	3,372	1,019
a. Treasury deposits	2,408	959
b. Foreign deposits	266	- 6
c. Other deposits	698	67
7. Miscellaneous accounts, liabilities, and capital	2,732	370
8. Member bank reserves	31,863	938
a. Deposits at Federal Reserve Banks	25,777	947
b. Currency in vault	<sup>2</sup> 6,086	- 9
<b>TOTAL USES</b>	<b>99,875</b>	<b>3,921</b>
<b>III. DISTRIBUTION OF MEMBER BANK RESERVES:<sup>3</sup></b>		
Required	31,970	836
Excess <sup>3</sup>	59	- 160

For notes see opposite page.

## *Purposes and Functions*

and coin by the Treasury. As a result of this consolidation of Federal Reserve and Treasury monetary accounts, the reserve equation records the gold stock directly rather than the amounts of gold certificates shown in the condition statement of the Reserve Banks. A convenient rule of thumb for translating between the System's combined balance sheet and the bank reserve equation is that items from the asset side of the balance sheet enter the equation as sources (that is, as supplying reserve funds), and that liabilities enter as uses (or absorbing reserve funds). Similarly, asset items from Treasury monetary accounts would enter the equation on the sources side, and liabilities on the uses side.

Table 2 shows two sets of data for the items in the reserve equation: (1) daily-average amounts outstanding for June 1973 and (2) changes in such amounts over the 6-month period ending June 1973. One can usefully view items (1) through (3) as the sources side of the equation, and items (4) through (8) as the uses side. One of the factors using reserve funds is member bank reserves.

The source items supply reserve funds when they increase. For example, if other things remain unchanged, an increase in Reserve Bank credit will add to member bank reserves. On the other hand, a decrease in Reserve Bank credit or any other source item would reduce reserve funds and member bank reserves if other things were unchanged.

An increase in the use items absorbs reserve funds. For example, if other items are unchanged, a rise in currency in circulation would be accompanied by a decline in member bank reserves.

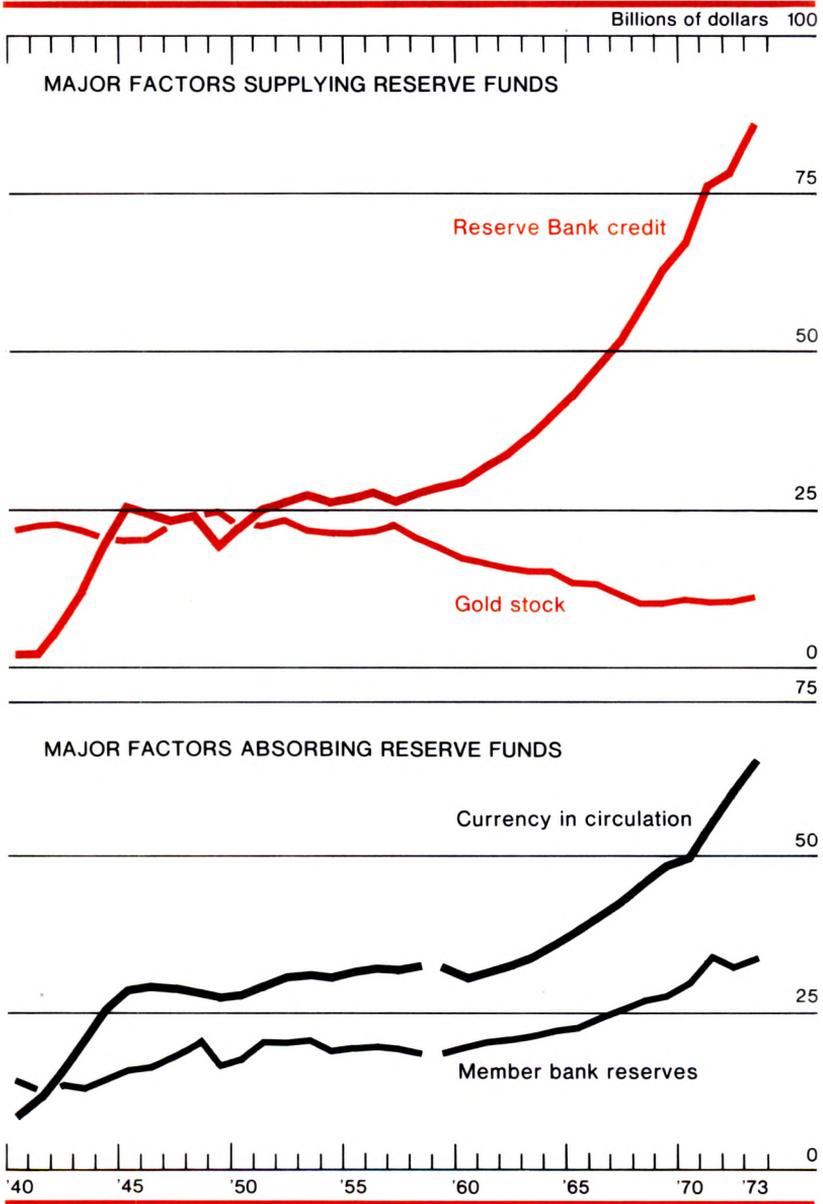
Thus, factors affecting both the supply of and demand for reserve funds have to be considered in order to understand the interaction between Federal Reserve operations (a source of reserve funds) and member bank reserves (a use of reserve funds).

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## *MAJOR FACTORS IN THE EQUATION*

Over the longer run, the major factors affecting member bank reserves are Federal Reserve credit, holdings of international monetary reserves, and currency in circulation. Other factors, which do not change greatly over the longer run, include: Treasury currency outstanding; Treasury deposits; and foreign and other nonmember bank deposits at the Reserve Banks. Levels of the major factors and of

**CHART 5A**  
BANK RESERVE EQUATION – Annual Averages



Annual averages of monthly figures. Beginning 1959, currency in circulation excludes amounts of currency and coin held as bank reserves.

## *Purposes and Functions*

member bank reserves over the period of 1940–73 are depicted in Chart 5A (with abrupt changes in the level of member bank reserves usually indicating action by the Board to change reserve requirement percentages of member banks).

The interaction of changes that occur among major factors affecting reserve funds is considered in the discussion that follows, in order to put into perspective the linkage between Federal Reserve monetary actions and commercial banking.

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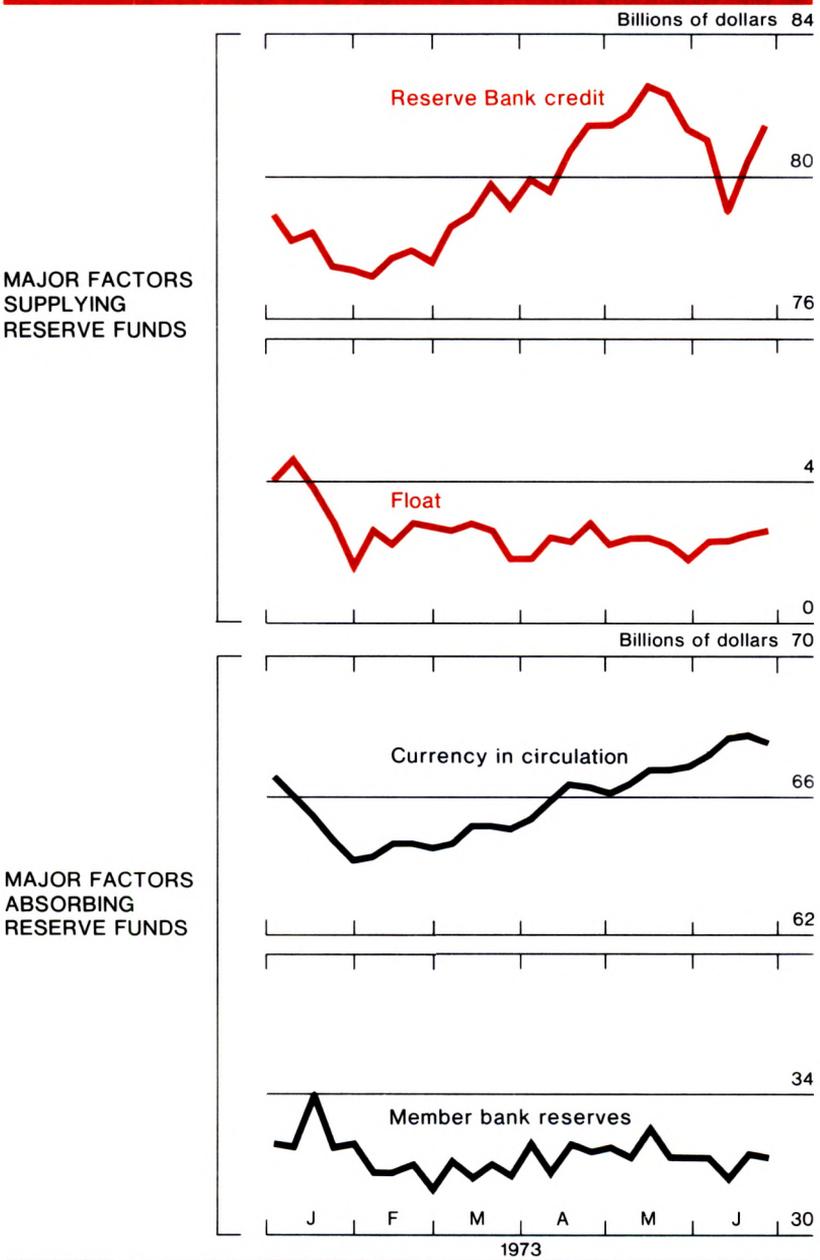
## *SOURCES SIDE*

As Table 2 shows, Federal Reserve credit is the major factor on the sources, or supply, side of the bank reserve equation. The components of Federal Reserve credit consist of the System's security holdings, Reserve Bank loans, float, and other assets.

Most of the loans of the Reserve Banks represent temporary borrowings by member banks as they adjust to unexpected changes in their reserve positions. Although individual commercial banks take the initiative in seeking credit, the frequency and duration of borrowing is limited under Federal Reserve regulation. In addition, the Federal Reserve can influence the relative attractiveness of such credit by the interest rate that it charges on these loans (the "discount rate"). Increases in borrowing added \$739 million to Reserve Bank credit in the first half of 1973.

Another component of Federal Reserve credit is float—the difference between cash items in process of collection and deferred availability cash items. The importance of float hinges not so much on the total amount of reserves it supplies—because that volume is relatively small compared with the volume supplied by other components of Federal Reserve credit—but rather on the volume and frequency of changes in its level. From one week to another float may vary sharply and sometimes quite erratically. During one week in January 1973, for example, it declined by \$1.2 billion on a daily-average basis. Therefore, it is very difficult to predict the extent to which float will affect week-to-week changes in bank reserves. During the first half of 1973 the highest daily-average level of float for any week was \$4.5 billion, and the lowest was \$1.7 billion. Meanwhile, over the half year the level of float declined by \$1.1 billion on balance, reducing the supply of reserve funds by a similar amount.

**CHART 5B**  
**BANK RESERVE EQUATION – Weekly Averages**



Weekly averages of daily figures.

## *Purposes and Functions*

By far the most important component of Federal Reserve credit is the System's portfolio of securities. As a result of purchases and sales in the open market during the first half of 1973, the Federal Reserve increased its holdings by \$4.3 billion, thus providing a similar amount of reserve funds. These open market operations, the essential features of which are described in Chapter 4, are a key element in the linkage between monetary policy actions and bank reserves.

To illustrate the impact of an open market transaction on member bank reserves, assume that the Federal Reserve Banks purchase \$100 million of Treasury bills for the Open Market Account. The Federal Reserve pays for these bills by issuing checks drawn on the Reserve Banks. As the sellers of the securities—typically a group of Government securities dealers—utilize the funds to repay bank loans or to build up their own deposit balances, they deposit these checks in member banks. The banks send the checks to the Reserve Bank where they are credited to the member bank's deposit account.

This illustration has traced a Federal Reserve open market operation in slow motion to show how the process works. In actual practice, the transaction does not require a check, since the process is accelerated by a computer-hook-up between the Reserve Banks and the banks that act as clearing agents for the dealers. Payments to the dealers and credits to member bank reserve accounts are thus made simultaneously, and the transaction is fully cleared during the day specified for delivery, which is often the same as the day of purchase.

The result of the above transaction then is an increase of \$100 million in the Federal Reserve's holdings of securities and an equal increase in member banks' reserve balances at the Federal Reserve. Although the direct effect of the operation is to increase the reserves available to certain commercial banks, indirectly the action initiates a series of portfolio adjustments by banks and the public by which the reserves are quickly diffused through the banking system. These adjustments will be described more fully in the discussion of member bank reserves on the uses side of the equation.

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### *USES SIDE*

Member bank reserves are one of the several uses into which the supply of reserve funds may be absorbed. In general, the uses of reserve funds can be thought of as jointly determined by the individ-

ual demands of the public, the Treasury, and member banks. Demands by each of these sectors absorb reserve funds. For example, when the member banks make payments to the Federal Reserve to obtain additional currency for their customers or to make remittances to the Treasury account at the Federal Reserve, these actions—by draining member bank reserve balances—absorb reserve funds generated by the sources described above. However, member bank reserves are pivotal in Federal Reserve operations since they influence the Nation's bank credit and bank deposits (which are the principal component of the Nation's money stock).

To understand the role of member bank reserve balances, a distinction should be made between the two major components of these balances—required reserves and excess reserves. Federal Reserve regulations require that each member bank keep a certain fraction of its deposits as cash reserves held either with its Federal Reserve Bank or in its own vault. The level of required reserves depends in part on the type of deposit and in part on the volume, as explained in Chapter 5. In mid-1974 required reserves of member banks averaged about 8 per cent of their total deposits subject to reserves. Reserves held by member banks that exceed required reserves are called excess reserves. Member banks try to keep a small amount of such reserves in order to avoid incurring penalties on reserve deficiencies. However, since excess reserves do not earn any income, member banks try to put to use quickly any accumulation of such reserves above minimal levels. For instance, if excess reserves increase by \$100 million above minimal levels as a result of a change in another reserve factor—say, a purchase of securities by the Federal Reserve—the banks that receive these excess reserves are likely to use them to expand loans and investments.

The relationship between reserves (required and excess) on the one hand, and bank credit (that is, loans and investments) and deposits on the other is illustrated by the simplified presentation in Table 3. In this example, it is assumed that the Federal Reserve purchases \$100 of securities from the nonbank public and that the seller of the securities deposits the check (issued by the System to pay for the securities) in his deposit account at a member commercial bank. Thus, the initial impact on banks of the open market operation of \$100 is a simultaneous increase of \$100 in both reserves and deposits. However, if it is assumed that banks are required by Federal Reserve regulations to maintain “required” reserves equal to 10 per cent of deposits, the functional composition of the \$100 addition to bank

## Purposes and Functions

**TABLE 3**

A SIMPLIFIED EXAMPLE OF BALANCE-SHEET CHANGES INDUCED BY OPEN MARKET OPERATIONS<sup>1</sup>

Item	Federal Reserve		Member banks		Nonbank public	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
<b>Initial impact of operations (in the amount of \$100)</b>						
Securities Reserves	+100	.....	.....	.....	-100	.....
Demand deposits	.....	+100	+100 of which: (required, +10) (excess, +90)	.....	.....	.....
Total	+100	+100	+100	+100	+100	.....
<b>Ultimate impact of operations (in the amount of \$100)</b>						
Securities and loans Reserves	+100	.....	+900 +100 of which: (required, +100) (excess, .....)	.....	<sup>2</sup> -500	<sup>2</sup> +500
Deposits	.....	.....	.....	+1,000	+1,000	.....
Total	+100	+100	+1,000	+1,000	+ 500	+500

<sup>1</sup> This example assumes a uniform reserve requirement of 10 per cent on all deposits.

<sup>2</sup> In this illustration it is assumed that the nonbank public reduces its security holdings by \$500 and increases its debt to banks by \$500. Given this assumption together with an assumption of a 10 per cent reserve requirement against such deposits, commercial banks would hold \$400 more in securities and \$500 more in bank loan assets. This distribution has been assumed for illustrative purposes only; the actual composition as between holdings of securities and bank loans would depend on a number of economic factors.

reserves will be \$10 of required and \$90 of excess, as shown in the top panel of Table 3.

The bank will normally seek to employ these unneeded funds profitably by extending loans to or acquiring securities from the nonbank public. Those members of the nonbank public who receive the proceeds of the loans or sell securities will acquire more deposits. A large part of these deposits will be used to make payments, and in the process the deposits will be redistributed to many banks. The expansion in deposits at banks will increase the quantity of required reserves and will lower the quantity of excess reserves by identical amounts

for member banks as a group. Thus, there is a change in the composition of bank reserves but not in the level.

It is possible for the expansion of bank credit and the simultaneous expansion of bank deposits to continue until the entire \$100 of reserves originally supplied to the banking system by the Federal Reserve open market operation become required reserves. If so, at the end of the expansion process the aggregate deposit holdings of the nonbank public (which are bank liabilities) will have increased by \$1,000 (bottom panel of Table 3). Commercial bank assets, on the other hand, will also have risen by \$1,000—\$100 in reserves and \$900 in loans to, and/or securities purchased from, the public.

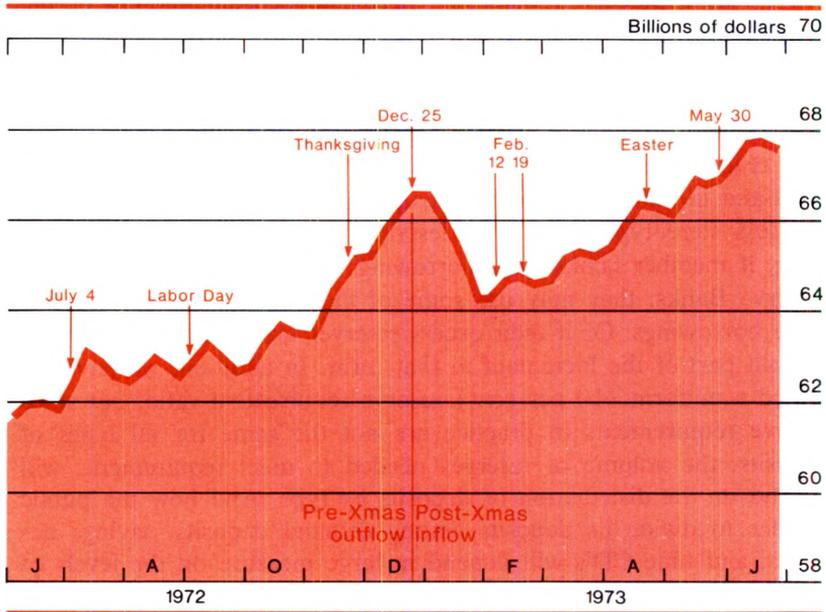
In reality, the relationship between increases in reserves on the one hand and in bank credit and deposits on the other is more complex and less stereotyped than this description would make it. For one thing, if member banks have borrowings outstanding at the Federal Reserve Banks, they may use some of the excess reserves to repay those borrowings. Or if their excess reserves are low, they may wish to hold part of the increment in that form. In addition, we have assumed a uniform (10 per cent) reserve requirement ratio, but since reserve requirements in practice are not the same for all types of deposits, the volume of reserves needed to meet requirements will depend on the distribution of deposits by type. And how the public decides to divide its deposits among demand deposits, savings deposits, and time CD's will depend in large measure on the levels of interest rates and economic activity. Thus, a given injection of reserves will be absorbed to a greater or lesser extent in demand deposits or time deposits, depending on economic circumstances. Furthermore, it may be that the public will decide to increase its holdings of currency during this process of expansion; if so, reserve funds would be absorbed.

As Table 2 has shown, currency in circulation is the largest single use of reserve funds. The public's demand for currency depends principally on income, and it is responsive to both long-run growth and cyclical movements of the economy. However, there are also large seasonal swings in demand for currency, especially around major holiday periods. During the last 2 months of a year the increase in currency in circulation may absorb as much as \$3 billion of reserves. Then in the following 2 months much of this increase returns from circulation. One of the original reasons for creating the Federal Reserve System was to provide a means of accommodating, at least in

## Purposes and Functions

part, such seasonal increases in the public's demand for currency (by supplying reserve funds) and to avoid the often undesirable contraction of bank reserves and deposits that would otherwise occur.

**CHART 6**  
CURRENCY IN CIRCULATION — Weekly



Weekly averages of daily figures.

In its efforts to influence money and credit, the Federal Reserve System is much more concerned about the total quantity of privately held currency and demand deposits ( $M_1$ ) than about the composition of the total as between currency and demand deposits. Hence shifts from demand deposits to currency are usually accommodated by increasing the amount of Federal Reserve credit, so as to offset the net contractionary effect on the total of  $M_1$  that is caused by a shift toward currency. This net contractionary effect arises because currency in circulation absorbs reserve funds on a one-for-one basis whereas demand deposits absorb the fraction of reserves indicated by reserve requirement percentages. As a result, absorption of a given amount of reserve funds in currency will cause deposits to decline by a multiple of that amount if additional reserves are not provided.

The foregoing pages have described how the major factors in the bank reserve equation interact jointly to affect the total volume of member bank reserves—including currency as absorbing reserves, and other factors, such as Federal Reserve credit, as supplying reserves.<sup>6</sup> It has been shown that some of these factors are under the Federal Reserve's control and that others are not. But movements in the factors that are not controllable can be either offset or accommodated by System operations, depending on the monetary policy being pursued by the Federal Reserve at the time. Thus the quantity of reserves available to the banking system is ultimately controllable by Federal Reserve policy. However, the various factors supplying and absorbing bank reserves are very volatile, and to a great extent unpredictable on a week-to-week basis. This tends to limit the precision with which such reserves can be controlled in the short run.

In summary, when there is a change in member bank reserves, it is accompanied by a series of adjustments in the portfolios of both commercial banks and the public. On the one hand, banks change their loans and investments. On the other hand, the public changes its loan indebtedness to the banks or alters its holdings of securities—with consequent changes in deposits. The changes in holdings of securities take place in a national market and thus affect portfolios throughout the country. Moreover, the adjustment process is accompanied by movements in interest rates as the demand for, and supplies of, financial instruments in the various markets are brought into balance.

The following two chapters explain how the Federal Reserve uses its available instruments to implement monetary decisions. □

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<sup>6</sup> It may be noted that many financial analysts employ a measure known as the monetary base in analyzing the thrust of monetary policy and its effect on the flow of money and credit in the economy. The base is defined as the sum of member banks' reserves and currency in circulation, and it is easy to see that this measure accounts for almost all of the uses side of the bank reserve equation over the longer run.



# Instruments of Monetary Policy: Open Market Operations

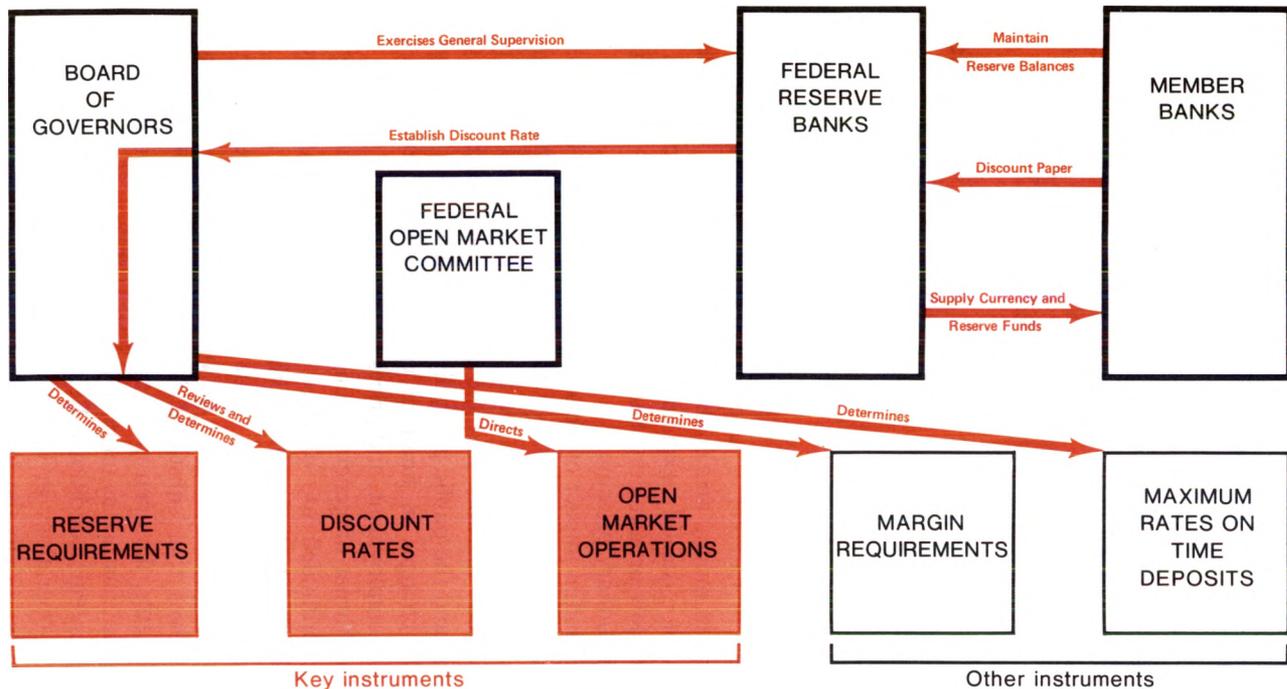
## *Chapter Four*

Regulation of the Nation's supply of money and credit, as explained in Chapter 1, encompasses both efforts to ensure that the growth in money and credit will be adequate to meet the longer-run needs of a steadily expanding economy, and actions in the shorter run to slow or accelerate such growth in order to dampen inflationary or deflationary pressures.

The initial impact of Federal Reserve actions is on the availability and cost of bank reserves. But the effects of changes in these soon spread more widely—to the supply of money and credit, interest rates in financial markets, and the liquidity of financial institutions, businesses, and the public generally. Ultimately, after time lags of varying length, changes in financial conditions affect current expenditures, output, employment, and prices.

The thrust of general monetary policy is made effective through the coordinated use of open market operations, the regulation of member bank discounting with Federal Reserve Banks, and changes in member bank reserve requirements. The three instruments should be considered more as a set of complementary instruments than as alternatives that substitute for one another. Of these three policy instruments, the open market instrument is the most flexible, and it is in continuous use as monetary policy adapts to ever-changing market and economic conditions. Because of the leading role played by open market operations in U.S. monetary policy, it is useful to begin by setting out briefly the general features of such operations.

**CHART 7**  
THE FEDERAL RESERVE SYSTEM – Relation to Instruments of Credit Policy



Federal Reserve purchases and sales of securities in the open market are transacted mainly in U.S. Government securities. Operations are also conducted in Federal agency securities and bankers acceptances, but these are on a considerably smaller scale. When the Federal Reserve buys securities, the supply of bank reserve funds is expanded, and when it sells, reserve availability contracts. Open market operations of the scale and frequency needed to carry out U.S. monetary policy could not be undertaken without a large and active market for securities.

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## *ROLE OF SECURITIES MARKETS*

A central bank might conceivably provide or absorb bank reserves through market transactions in any type of asset. Whatever the asset, a purchase would be paid for by a check drawn on the central bank. The seller of the asset would deposit this check in his commercial bank, and once the check had cleared, central bank funds would be added to the banking system. When the central bank sold an asset, the buyer would draw a check on his commercial bank, and once this check had cleared, funds would be transferred from the banking system to the central bank.

In practice, however, most types of assets cannot be traded easily enough to be well suited to open market operations. For the open market instrument to work effectively, the central bank must be able either to buy or to sell assets on a timely basis at its own convenience and in whatever volume may be needed to keep the supply of bank reserves in line with prevailing policy objectives.

The Federal Reserve carries out by far the greatest part of its open market operations in the U.S. Government securities market. This market, in which aggregate trading generally averages several billion dollars a day, is the broadest and most active of U.S. financial markets. Transactions in that market are handled "over the counter." The great bulk of the sizable volume of buy or sell orders are placed with specialized dealer firms that make regular markets. Although most dealer firms are located physically in New York City, dealers and customers—regardless of where they are located—are linked

## Purposes and Functions

together by a network of telephone and wire services that makes the boundaries of the market nationwide.

The large volume of secondary trading in Government securities is a reflection in part of the sheer size of the outstanding marketable Federal debt—about \$265 billion on June 30, 1974—and in part of the widespread use of these securities as liquid assets in the portfolios of many types of investors. This use is encouraged by the heavy concentration of Treasury issues in relatively short maturities; roughly half of them mature within 1 year, and slightly more than four-fifths within 5 years. Moreover, because the Federal Government's broad power to tax assures that servicing charges on its debt will be paid, Treasury securities are free of default risk. The combination of large over-all debt availability, of heavy concentration in relatively short-dated maturities, and of the lack of default risk has encouraged the development in this market of a highly specialized and intensely competitive group of dealer intermediaries.

These special advantages of U.S. Government securities have encouraged economic units of virtually all types to hold some such issues in their investment portfolios. Business corporations—both financial and nonfinancial—State and local government units, Federal agencies, charitable institutions, foreign official institutions and foreign banks, trust accounts, and even many individual investors are interested in owning some marketable Treasury securities.

In recent years there has also been a substantial growth in both the outstanding amount of Federal agency securities and the volume of trading in these issues.<sup>1</sup> Inasmuch as such issues are considered fairly close substitutes for Treasury issues, Government securities dealers have generally extended their market-making to the Federal agency sector. The growth of the Federal agency market has made it possible for the Federal Reserve to execute some open market trans-

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<sup>1</sup> The bulk of Federal agency debt, about \$66 billion in mid-1974, consists of securities of Federally sponsored housing and farm credit agencies. These agencies, while privately owned, were organized by acts of Congress, and they operate in close collaboration with the Federal Government. The Federal home loan banks, the Federal National Mortgage Association, and the various agencies of the Farm Credit Administration fall in this category.

Another \$17 billion of Federal agency debt has been issued by Federally owned corporations, such as the Tennessee Valley Authority, the United States Postal Service, the Farmers Home Administration, the Export-Import Bank, and the Government National Mortgage Association. The *Budget of the United States Government* records the borrowing activities of these agencies.

actions in this sector, although the volume still represents a relatively small share of the System's total market transactions.

Short-term Treasury and Federal agency securities, of course, are not the only types of short-term market instruments available to large investors seeking interest-earning, liquid assets. Competitive alternatives include bankers acceptances, large negotiable CD's, high-grade commercial paper, and short-term securities issued by State and local governments with high credit ratings. Among these forms the Federal Reserve does conduct some operations in bankers acceptances, but such operations represent only a small fraction of all Federal Reserve operations.

The other competing debt forms mentioned are also traded in open markets. For the most part, however, markets for these securities are not well suited to open market operations; secondary trading in individual issues is considerably less active than in Treasury issues—and in some is discontinuous. Furthermore, except for certain State and local government securities, the Federal Reserve is not authorized by law to conduct operations in any of these other securities.

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## *CONDUCT OF OPEN MARKET OPERATIONS*

The following exposition of the conduct of open market operations begins with a description of the organizational arrangements the System has developed for administering open market policy. After that there is a discussion of the process through which policy actions are decided, along with the types of information on which these actions are based. And finally there is a description of the operating techniques used by the Trading Desk for carrying out open market transactions.

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## *ORGANIZATIONAL ARRANGEMENTS*

By law, all open market operations of the Federal Reserve System must be directed and regulated by the System's Federal Open Market



Committee, whose functions and composition were noted in Chapter 2.<sup>2</sup> The Committee meets approximately once a month to decide on its policy stance and objectives. It expresses these, for operating purposes, in the form of a directive issued to the Federal Reserve Bank of New York.

The Committee regularly designates the New York Bank to serve as its agent in executing whatever open market transactions the Committee authorizes. The Committee selects a Manager of the System Open Market Account, who is also a senior officer of that Bank and who has the immediate responsibility for carrying out open market operations. The System Account is participated in jointly by all 12 of the Federal Reserve Banks.

Coordination of the day-to-day operations with the directive is maintained by telephone through the medium of a daily conference call. Regular participants in this call are the System Account Management, senior staff at the Board of Governors, and a Reserve Bank president currently serving as a voting member of the Committee. Following this call, a memorandum is sent to all Committee members—by wire to all Reserve Bank presidents—informing them of action that the System Account Manager expects to take during the day in light of developing conditions and Committee objectives.

The staff at the Federal Reserve Bank of New York that assists the Account Manager in carrying out the FOMC's domestic policy directive operates through a "Trading Desk," which maintains direct telephone communication with about two dozen dealers located in New York City or outside. All of the Manager's purchase and sale orders for the Committee are executed through this Desk.

When the Account Manager seeks to execute an open market transaction, his staff contacts dealers in Treasury and Federal agency securities just as other investors do. In fulfilling their obligation to make regular markets, the dealers stand ready, when asked, to quote firm bid and offer prices on such securities and to do business at these prices on whichever side of the market the customer wishes. Since nearly two dozen dealers are now making markets in U.S. Government and Federal agency securities and are actively competing with one an-

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<sup>2</sup> The Committee's responsibility also encompasses operations in foreign currencies. The purposes and characteristics of such operations are discussed in Chapter 6. This entire chapter is concerned with open market operations in domestic securities carried out in accordance with the domestic policy directives issued by the FOMC.



other for some share of the available business, the Trading Desk encounters no difficulty in completing its orders promptly. When its orders are large, as they usually are for the System's Account, the Trading Desk utilizes the auction method in distributing its orders among competing dealers.<sup>3</sup>

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### **POLICY PROCESS**

The process of formulating open market policy is a continuum that carries through successive meetings of the FOMC. It is a complex process because the quantity and the flow of money and credit not only affect all aspects of the economy's production and consumption activities but also are affected by them.

Discussion of policy at Committee meetings typically covers three general areas. First, there is a general expression of member judgments as to the state of the economy and the prospects for the future performance of such key economic variables as output, employment, prices, and the balance of payments, in relation to desired goals. Second, there is a more explicit statement of member recommendations as to what the thrust of open market policy should be—both for the longer run and in the inter-meeting period just ahead. Finally, the Committee engages in give-and-take discussion to synthesize its individual views into a consensus that can be expressed in sufficiently specific terms to provide meaningful guidance to the Manager in the conduct of day-to-day open market operations in the interim between Committee meetings.

Operating targets in recent years have included rates of growth in bank reserves and the monetary aggregates and associated ranges of tolerable changes in money market conditions. The key element in the

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<sup>3</sup> Of those firms that were active as Government securities dealers in mid-1974, roughly half were special departments of major money market banks. Among the nonbank dealers, several were large, integrated brokerage houses that operate as investment bankers and traders in a number of different sectors of the securities markets—including equity as well as fixed-income securities. Other firms specialize mainly in the more active sectors of the Treasury and Federal agency markets. But most dealer houses participate in more than one market sector, and their close attention to changing yield relationships in the total structure of market rates helps to link developments in one sector to those in others.

## *Purposes and Functions*

latter is a permissible range of fluctuation in the Federal funds rate. This rate—essentially that at which banks are willing to lend or borrow immediately available reserves on an overnight basis—is a very sensitive indicator of tightness or of ease in bank reserves.

Individual members of the Committee may stress different operating targets as having key importance in the existing financial setting—depending in part on differences in their interpretation of recent and prospective developments and in part on their interpretation of the lessons of experience and economic theory. For this reason an extended discussion is sometimes needed to arrive at a consensus.

When a consensus has crystallized, the Committee formulates an instruction in the form of a domestic policy directive. The Committee also reaches an understanding with regard to the specific targets and ranges that will serve as guides to the Manager in implementing the directive.

By law, the Board of Governors is required to keep a record of the policy actions taken by the FOMC at each meeting and of the reasons underlying these actions, and to publish that record in its *Annual Report* to the Congress. In view of the strong emphasis that the Congress places on keeping the public informed about the activities of all Federal agencies and of the special interest that the financial community takes in the FOMC's policy process, the Board and the Committee regularly make the policy record for each meeting available to the public about 90 days after a meeting. The record summarizes the Committee's assessment of the country's economic and financial position at the time of the meeting as well as the Committee's views regarding the appropriate course for policy during the period ahead. Finally, it includes the policy directive adopted by the Committee at the meeting in question, together with a record of the votes; if there were any dissents, statements of the reasons for the dissents are also included.

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## *MATERIALS FOR POLICY-MAKING*

In carrying out their decision-making responsibility, policy-makers need a wide variety of background information. They must seek to make judgments as objectively as possible in the light of movements and interrelations in a wide array of statistical data that show how

the economy is performing. Furthermore, they must assess such performance in relation to the national goals of sustained high employment, avoidance of marked inflationary or deflationary tendencies, and a balanced flow of U.S. payments with foreign countries. This need to consider current developments in relation to ultimate goals forces the Committee to look into the future with great care since actions to affect bank reserves today produce their ultimate impact on final spending, prices, and employment only after sizable time lags.

To meet the Committee's needs for an adequate factual foundation for diagnosing the recent performance of the economy and to provide an analytical framework for projecting how the economy is likely to perform in the future, a considerable amount of intensive and systematic staff preparation must precede each meeting of the FOMC. The results of this work are presented to Committee members in various forms, of which the following are most important:

1. Roughly three times a year, or more frequently if unusual developments require it, the staff provides the Committee with a full-scale projection of the domestic economic outlook. This presentation lays out expected levels and quarterly changes in all of the key sectors of the gross national product accounts—both in current and in constant dollars—for the next 12 to 18 months. It also provides projections of associated changes in key sectors of the Federal Reserve flow of funds accounts, plus a full review of expected developments in foreign trade and the balance of payments.

The projection is based on specific assumptions as to monetary, fiscal, and other Governmental policies. A monetary strategy is assumed that seems likely to come closest to achieving the Committee's policy goals during the period under consideration. To provide Committee members with a rough idea of trade-offs among policy goals that might result from alternative policy strategies, projections of key economic variables for alternative strategies are also provided. The particular estimates included in the projection are based on a blending of judgments reached by economic analysts experienced in making projections and of results from a large-scale econometric model of the U.S. economy.

2. Before each monthly meeting, Committee members receive a comprehensive staff document that reviews the facts and implications of recent domestic and foreign economic and financial developments, including the extent to which actual events seem to be confirming, or deviating from, the most recent economic projection. When significant deviations from the projection become evident, their

## *Purposes and Functions*

implications for the longer run are evaluated and needed adjustments are made in the forecast.

3. To assist the Committee in formulating the short-run operating targets that lie behind its policy directive, the staff provides at each meeting a special document that serves as a basis for discussion of this subject. The document lays out several alternative sets of intermeeting operating targets. One set indicates what might be expected or required for key financial variables if the prevailing longer-run policy strategy continues about unchanged; the others show what might develop if the policy strategy is revised. Each set of targets documents relationships among bank reserves, the monetary aggregates, and interest rates that would be expected to result from the particular strategy assumed.

4. The Account Manager provides detailed written reports, and also reports orally during the meeting, on his transactions since the Committee's last meeting; these reports include comments on any special problems that he has encountered in carrying out the Committee's instructions or in achieving the operational targets that the Committee specified for his guidance.<sup>4</sup>

5. Finally, Committee discussions at the monthly meetings are preceded by oral reports from the senior staff. These reports not only capulize the highlights of the more comprehensive written materials the Committee has already received but also evaluate those aspects of the outlook, including the implications of alternative monetary policy strategies, that are believed to be of special significance to the Committee's current policy decision.

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## *MANAGER'S OPERATING TECHNIQUES*

During the period between meetings, the System Account Manager is concerned with executing the Committee's latest domestic policy directive. His time horizon thus breaks down into the days and weeks in which he will be transacting operations, and he is constantly watching to see how the latest facts on bank reserves, the monetary aggre-

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<sup>4</sup>The Special Manager for foreign currency operations provides similar reports on foreign exchange markets and on actions he has taken under the Committee's directive to him.

gates, and interest rates seem to be relating to the Committee's operational targets.

The Federal Reserve engages in open market operations virtually every business day. The purpose of most of these operations, however, is to keep various technical (market) factors from introducing independent shifts in bank reserve positions that are inconsistent with the current aims of Federal Reserve policy or that may lead to larger and potentially destabilizing day-to-day fluctuations in money market conditions. As noted in Chapter 3, such technical market factors as changes in currency in public circulation, in Federal Reserve float, and in the Treasury's balance at the Federal Reserve can cause large day-to-day changes in bank reserve positions. Some of these changes are seasonal; others are unpredictable. The System's well-known practice of frequent open market transactions to offset the play of technical factors makes for a smoother day-to-day flow of money and credit to finance the Nation's business.

The Manager receives information continuously during the day on conditions in both the money and securities markets. In addition he receives information daily—with a 1-day lag—on bank reserve positions, and his staff provides him with both daily projections for several weeks ahead of all of the technical factors expected to influence the supply of reserves and weekly projections of the money and credit aggregates. Data on the money stock and the bank credit proxy are made available to the public weekly with a 1-week lag, although very rough preliminary data are available internally before that.

The Manager's operating techniques must be sufficiently adaptable for him to adjust to rapidly changing market forces and reverse the flow of reserves when the reserve effects of his transactions in preceding market days prove to have been too great or too little. Reflecting this need for adaptability, the Account Manager uses two general approaches to the execution of his operations. The approach that he selects depends on the expected duration of the particular reserve situation.

When projections of reserve factors indicate a net need to supply or to withdraw reserves for the banking system as a whole and this situation seems likely to persist for more than the current bank-statement-week, the Manager will generally buy or sell securities on an outright basis for prompt delivery. If the need is to withdraw reserves, he may also allow maturing securities to run off without replacement.

## *Purposes and Functions*

In situations where the need to provide (or withdraw) reserves seems only temporary—either because the projections suggest that reserves provided today will soon need to be withdrawn to offset expected seasonal movements in technical reserve factors, or because there is marked uncertainty about the near-term reserve outlook—the Manager will use special methods that have only a temporary effect on the aggregate supply of reserves. Thus, when the need is for temporary provision of reserves, he makes “repurchase agreements” with dealers; when it is for temporary withdrawal, he makes “matched sale–purchase transactions.”

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### *Outright Purchases and Sales*

System transactions on an outright basis are typically made through an auction process in which all dealers are requested to submit bids or offers for securities of the type and maturity that the Manager has elected to sell or buy that day.<sup>5</sup> Once dealer tenders have been received, they are arrayed according to price. The Account Manager then accepts amounts bid or offered in sequence until his order is covered.

Not all “outright” transactions occur through the dealer market. If, on a day when the Manager sees a need to supply or absorb reserves, he has an order from a customer who uses the Federal Reserve as agent for transactions—say from a foreign account—that matches up with the System need, he may simply execute the order directly through the System Account. Since the staff of the Trading Desk keeps an hourly record of bid and offer prices being quoted by dealers for the full list of Treasury securities, foreign orders can be readily executed directly with the System’s portfolio at the “best” market prices.

The great bulk of the System’s outright transactions—whether in the dealer market or directly with official accounts—occur in Treasury bills since the Treasury bill sector is by far the most active part of the U.S. Government securities and Federal agency markets. From time to time the System extends its purchases beyond the Treasury bill

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<sup>5</sup> The System is prepared to do business with any dealer with adequate capital that demonstrates—through regular daily reports to the Federal Reserve Bank of New York on its positions and transactions—that it is regularly making markets in U.S. Government and Federal agency securities. Each dealer is also expected to submit at intervals financial statements certified by qualified public accounting firms.

**TABLE 4**

**TRANSACTIONS OF THE SYSTEM OPEN MARKET ACCOUNT**

In millions of dollars

	1972	1973
<b>U.S. Government securities:</b>		
<b>Outright transactions:</b>		
Treasury bills:		
Gross purchases .....	8,522	15,517
Gross sales .....	6,467	4,880
Redemptions .....	2,545	3,405
Others within 1 year:		
Gross purchases .....	125	1,396
Gross sales .....	...	...
Exchanges, maturity shifts, or redemptions .....	2,933	-140
1-5 years:		
Gross purchases .....	789	579
Gross sales .....	...	...
Exchanges, or maturity shifts .....	-1,405	-2,028
5-10 years:		
Gross purchases .....	539	500
Gross sales .....	...	...
Exchanges, or maturity shifts .....	-2,094	895
Over 10 years:		
Gross purchases .....	167	129
Gross sales .....	...	...
Exchanges, or maturity shifts .....	250	87
<b>Total outright transactions:</b>		
Gross purchases .....	10,142	18,121
Gross sales .....	6,467	4,880
Redemptions .....	2,862	4,592
<b>Matched sale-purchase transactions:</b>		
Gross purchases .....	23,319	45,780
Gross sales .....	23,319	45,780
<b>Repurchase agreements:</b>		
Gross purchases .....	31,103	74,755
Gross sales .....	32,228	74,795
Net change .....	-312	8,610
<b>Federal agency obligations:</b>		
<b>Outright:</b>		
Gross purchases .....	1,197	865
Sales or redemptions .....	370	239
Repurchase agreements, net .....	-88	29
<b>Bankers acceptances, net:</b>		
Outright .....	-9	-2
Repurchase agreements .....	-145	-36
Net change in total System holdings .....	272	9,227

## *Purposes and Functions*

market to include intermediate- and long-term Government and agency issues. In recent years it has not had occasion to sell longer-term coupon issues, but it has sold short-term issues (those maturing in less than a year).

Buying of longer-term coupon issues is typically undertaken when the immediate market supply of Treasury bills is temporarily depleted and a supply of longer-term issues is available. Sometimes, the FOMC directs that longer maturities be purchased to help implement a particular interest rate strategy. But the impact of such transactions, in and of themselves, on yield spreads between short- and long-term issues tends to be quite marginal because the term structure of market yields is very strongly influenced by the consensus or interest rate expectations of market participants as a group. Nevertheless, at times when interest rates are already on the verge of a general decline—say, because of a threatened downturn in economic activity—System buying of longer-term maturities for the System account may influence the timing and sharpness of the decline in long-term rates.

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## *Repurchase Agreements*

In situations that call for only temporary additions to bank reserves, the Manager of the System Account engages in short-term repurchase agreements (Rp's) with dealers—that is, the System buys securities from the dealers, who agree to repurchase them by a specified date. This arrangement permits an injection of reserves on a short string, so that the reserves will automatically be drawn back when the Rp's mature.

Rp's for the System's Account are dated to terminate in from 1 to 15 business days. However, most of them mature in less than 7 days, and dealers have the option to terminate agreements before maturity if they so desire. Pre-maturity withdrawals of dealer Rp's may also suit the needs of the System. Such withdrawals absorb reserves, and they often occur because a greater than anticipated availability of reserves to the banks is either reducing dealer borrowing costs elsewhere or is leading to large sales of securities by dealers.

Whenever the Account Manager offers Rp's to dealers, the distribution among dealers is determined by means of an auction. All dealers are advised of the auction, but because banks have access to the Federal funds market—and under certain circumstances, to the Federal

Reserve discount window—only nonbank dealers are asked to submit tenders. Individual dealers may enter more than one bid at various rates. The Manager arrays bids from all dealers in descending order and then accepts the amount needed to meet his reserve objectives.

Because System Rp's are initiated to suit the needs of the Federal Reserve and not those of dealers, the Account Manager may find provision of reserves through Rp's difficult on days when dealer financing needs are minimal. At such times he may encourage dealers to seek collateral for Rp's from customer sources in addition to whatever limited amounts the dealers may have in their own inventories.

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### *Sale–Purchase Transactions*

In situations where the Account Manager faces a temporary need to absorb, rather than provide, bank reserves, he may employ matched sale–purchase transactions with dealers, including bank dealers as well as nonbank firms. These transactions involve a contract for immediate sale to, and a matching contract for subsequent purchase from, each participating dealer; the maturities of such arrangements usually do not exceed 7 days. The initial sale causes surplus reserves to flow from banks through the dealers to the System. Later, when the System purchase is implemented, the flow of reserves is reversed.

On the sale side of the transaction, the Account Manager offers to all dealers immediate delivery of a given bundle of securities at stated prices. Simultaneously, he requests all dealers to make offerings in an auction indicating the amounts and prices at which they would be prepared to resell these same securities to the System after one or a few days. Since dealers must borrow the funds they will use to enter into matched sale–purchase arrangements, the dealers check with money market banks to determine the present availability and cost of funds on ordinary bank Rp's (whereby the bank will provide the dealer with funds by purchasing the security from the dealer under an agreement to sell it back).

Once they know what these rates are, dealers make their tender offers in the Manager's auction so that the yield they receive on the matched sale–purchase operation produces a small spread over the cost of funds borrowed through bank Rp's. The Account Manager then arrays the tenders by price and allots his sales along this price scale until the desired volume of transactions is covered.

## **OPEN MARKET OPERATIONS AND TREASURY FINANCINGS**

Because the bulk of the System's open market operations are carried out in the market for U.S. Government securities, question is often raised as to how these operations relate to market borrowing by the Treasury. Treasury financings are of two types—(1) cash borrowings, which raise new money and expand the size of the outstanding public debt, and (2) refinancings, which roll over outstanding debt, as it matures, into new issues. The Treasury must undertake its financings in the open market. In the United States only a very limited amount of direct lending to the Treasury by the central bank is permitted since such direct lending would expand the supply of bank reserves and thus be potentially inflationary.<sup>6</sup> This insulates the Federal Reserve from any official pressure to assist in financing of Government deficits.

In Treasury refinancing operations, the Federal Reserve limits its participation to the amount needed to roll over System holdings of the maturing issue. If the System did not undertake to roll over such debt, its holdings of maturing debt would have to be redeemed, and this would cause a commensurate contraction in bank reserves. This could greatly complicate the Federal Reserve's task of managing bank reserves because of the very large size of System holdings of maturing Treasury debt; for example, holdings of maturing coupon issues at times may amount to as much as \$6 billion. The sheer size makes simultaneous redemptions and concurrent market purchases to avoid unwanted reserve absorption impracticable.

The Account Manager may elect to redeem a small part of the System's holdings of a particular issue of maturing debt as a means of absorbing redundant reserves being otherwise generated at the time. These run-offs seldom exceed a few hundred million dollars,

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<sup>6</sup> The law has usually permitted the Treasury to borrow up to \$5 billion directly from the Federal Reserve. On the few occasions when such borrowing has occurred, it has taken the form of special Treasury certificates to be repaid within a few days. The purpose of such borrowing is to permit the Treasury to borrow for very short periods when its cash balance may be running low for technical reasons, such as at times just before large inflows of income tax receipts around quarterly tax-payment dates. The temporary borrowing privilege was suspended in the fall of 1973 and as of mid-1974 was awaiting congressional renewal.

and they occur chiefly in connection with weekly Treasury bill auctions rather than in refinancings of Treasury coupon issues.

The net effect of these Federal Reserve practices is to require the Treasury to cover its financing needs in competition with other borrowers in the public securities market. To attract funds from the general public, the Treasury is obliged to pay the “going” rate of interest in the market.

The thrust of monetary policy is thus unaffected by Treasury financing operations. However, there are short periods from time to time when the Federal Reserve does take account of large-scale Treasury debt financing—particularly those involving issuance of intermediate- and longer-term debt—in the day-to-day conduct of policy. The term “even keel” is the shorthand expression that the market uses to describe such periods.<sup>7</sup>

The length of an even-keel period may vary from 1 to 3 weeks, depending on market conditions and attitudes at the time. Sometimes it may be only the very brief period between the announcement and the auction or subscription date. In others it may be the somewhat longer period until the date for payment. In a very few it may run somewhat beyond the payment date.

During an even-keel period, the Federal Reserve does not give up completely its freedom of maneuver in carrying out monetary policy. But it does not undertake any actions that, by themselves, would severely jolt market attitudes while a large U.S. Government financing is in process and thereby risk great unsettlement in securities markets generally. Nevertheless, swings in market rates of interest have sometimes been quite sizable during periods of even keel as well as outside of such periods. Thus, in no way does even keel provide a guarantee that the Federal Reserve will stabilize securities markets for Treasury financings at the expense of reserve objectives. □

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<sup>7</sup> The concept of even keel does not apply to regular, repetitive auction financings such as those for weekly and monthly bills.



# Other Instruments of Monetary Policy

## *Chapter Five*

Changes in the Federal Reserve discount rate and in member bank reserve requirements are the key instruments that the Federal Reserve uses along with open market operations to implement national monetary policy. All three affect the availability of bank reserves and money and the cost of credit generally.

In addition to these tools of general monetary policy, the Federal Reserve manages two other instruments, each of which has a more selective impact on deposits and credit flows. One is the setting of ceilings on the interest rates that member banks may pay to customers on their savings and time deposits; the other is the fixing of the initial margin requirement (downpayment in cash or collateral) on credit-financed purchases of corporate stocks and convertible bonds. The interest rate ceilings limit the expansion of member bank savings and time deposits only when interest rates in the credit market are high relative to the ceilings. Margin requirements, in contrast, limit expansion of stock market credit at all times, although they are much more of a limitation the higher the required margin, which has been 50 per cent or higher throughout the postwar period.

## **OPERATION OF RESERVE BANK DISCOUNT WINDOW**

The Federal Reserve lending mechanism, originally conceived as being the heart of the U.S. central banking operation, has long since been displaced in this role by open market operations. For some time it has served mainly as a complement to open market operations in the implementation of monetary policy.

The provision of Federal Reserve credit to member banks—at the initiative of the borrowing bank but subject to administrative constraints—serves essentially as (1) a source of temporary funds to help with large, unexpected deposit or portfolio adjustments that individual banks sometimes encounter and (2) a safety valve for member banks as a group during periods of monetary restraint. In addition, through lending operations the Federal Reserve provides somewhat longer-term credit to member banks that lack ready access to national money markets when these banks need help in covering recurring seasonal needs for funds. On rare occasions of emergency, when members confront urgent needs for liquefying their assets (such as needs arising from, say, unexpected developments in the local, regional, or national economy), they may obtain credit on a longer than temporary basis. Finally, nonmembers may borrow from the Federal Reserve under unusual and exigent circumstances in the financial markets, but at an interest rate that is above the discount rate available to member banks.

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## **MECHANICS OF BORROWING**

Technically, a member bank has two ways of borrowing funds from its Reserve Bank—by a discount or by an advance. Although the two methods are quite different, it has become customary to refer to both as “discounting.”

A discount, in a technical sense, entails the sale of “eligible paper” to the Reserve Bank; all such paper carries the member bank’s endorsement. An advance is a loan evidenced by a promissory note of the borrowing bank and secured by adequate collateral. At one time discounts were much the more important means of access to Federal

Reserve credit, but today virtually all funds flow through the discount window by means of advances.

The law identifies three types of collateral for ordinary use in securing a member's borrowing—U.S. Government or Federal agency obligations (or other debt fully guaranteed by the U.S. Government or a Federal agency); "eligible commercial, industrial, and agricultural paper"; and other security deemed satisfactory by the Reserve Bank. The major part of all borrowings are backed by U.S. Government obligations. Since many member banks leave their holdings of U.S. Government securities at Reserve Banks for safekeeping, it is a fairly simple matter to use such obligations as collateral.

Employing "eligible paper" is somewhat more complicated because such paper must be sent to the Federal Reserve Bank along with information that will permit the Reserve Bank to make a judgment concerning the eligibility and acceptability of the paper. Today, most private obligations held in bank portfolios are considered to be "eligible" for discount with a Reserve Bank if the remaining time to maturity is 90 days or less. Bankers acceptances and municipal warrants, however, may have a remaining maturity of up to 6 months, and agricultural loans may have as long as 9 months to maturity. Loans made for speculative purposes and bank finance bills (working capital acceptances) are not eligible.

Loans "secured to the satisfaction" of the Reserve Bank—that is, by other than U.S. Government or agency obligations or by eligible paper—are more common today than a decade or so ago. By law, the rate charged for such loans must be  $\frac{1}{2}$  of a percentage point higher than the rate on borrowing against collateral authorized by statute.

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### *ADJUSTMENT CREDIT*

Access to a Reserve Bank discount window is treated as a privilege of membership rather than as a right. An important reason for administrative restraint by the Federal Reserve on member bank borrowings is to maintain reasonable control over the volume of such borrowings and thus avoid excessive and unexpected fluctuations in the over-all volume of reserves being supplied by this means.

From the standpoint of an individual member bank, borrowing from the Federal Reserve can be an alternative to obtaining funds in the broad U.S. money market by borrowing overnight funds from

## *Purposes and Functions*

other banks (so-called Federal funds), by selling securities from its asset portfolio, or (in the case of larger banks) by issuing large negotiable time CD's. For the banking system as a whole, however, there is an important difference between borrowing from the Federal Reserve and making adjustments through the market. Borrowing from the Federal Reserve increases the total reserves of banks and—if not offset by open market operations—provides the basis for an expansion of money and credit. Market adjustments, on the other hand, merely redistribute presently available reserve funds among banks.

Since membership in the Federal Reserve System in mid-1974 numbered about 5,800 banks with assets of more than \$600 billion, it is apparent that the volume of borrowed reserves could vary widely if each member were free to tap its Federal Reserve Bank discount window without restriction. A pattern of large and volatile borrowing by the member banks would run the risk of eroding the System's ability to control bank reserves and thereby to influence growth of money and credit in line with the Nation's economic objectives. For these reasons administrative constraints on member bank borrowing have been developed.

As already indicated, most of the borrowing by member banks from the Reserve Banks is for quite short periods—usually no more than a few days—as banks seek funds to make temporary adjustments in their reserves. Such borrowing can be termed adjustment credit. Reasons for such borrowing that are considered appropriate generally include unexpected increases in loan demand, sudden deposit losses, or temporary and unexpected difficulties in obtaining funds through the facilities of the money market. Borrowing for the following purposes would be considered inappropriate: to finance speculative loans and investments, to substitute Federal Reserve credit for member bank capital, to finance lending in the Federal funds market, to acquire securities or other money market paper at a profit, or to refinance existing indebtedness to private lenders at the lower discount rate.

In judging whether a member bank is relying unduly on borrowing at the discount window, the Reserve Bank discount officer takes into account the amount of a member's indebtedness in relation to its required reserves, the frequency of the bank's borrowing, any need for funds that is attributable to computer breakdowns in transfers of funds, and any special circumstances affecting the current position of the bank.

As a general rule, larger member banks borrow to the next business day or for only a few days at a time since they manage their positions on a daily basis. Smaller banks usually borrow to the end of the reserve week, or for two reserve weeks. Even though requests for credit extensions are seldom denied, requests for renewals or too frequent requests for short-term discounting are closely scrutinized and under some circumstances are discouraged or even refused. If a particular member bank shows a pattern of borrowing that is characterized by frequent or continuing indebtedness over an extended period, the Reserve Bank lending officer will intervene and press the offending bank to repay its debt to the System, even though this may require the bank to reduce its assets and modify its loan and investment policies.

System guidelines for lending are interpreted by the Reserve Banks acting individually through their lending officers and credit committees. Policies with regard to such interpretations are coordinated by the System Conference of Lending Officers, which meets periodically and holds telephone conferences as needed. Through this type of coordination regional differences of interpretation are minimized. Since administration of the discount window is not normally intended to serve as an instrument of counter-cyclical monetary policy, lending guidelines are applied uniformly throughout the credit cycle—that is, during both periods of tight money and periods of easy money. However, since member bank borrowings are largest and most widespread during periods of credit restraint, more banks ordinarily become subject to administrative constraints at such times.

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### *SEASONAL BORROWING PRIVILEGE*

In 1973 the Board of Governors, in consultation with the Reserve Banks, decided to formalize arrangements allowing for the extension of seasonal credit to member banks that lack effective access to national money markets. This decision was an outgrowth of the studies reappraising the discount mechanism undertaken by a special Federal Reserve committee in the late 1960's.

In its report this special committee noted that without an assured source of seasonal credit, smaller banks typically accumulated short-

## *Purposes and Functions*

term securities as a pool of liquidity on which they could draw to meet peak seasonal needs for funds. To the extent that bank resources were tied up in this way during the off-peak season there was a danger that some local credit needs for desirable projects would not be adequately accommodated. As a result of the 1973 changes in the regulation, which permit the Reserve Banks to supply credit to smaller banks to tide them over periods of peak seasonal need, banks are now able to use resources that they had previously placed in liquid assets to meet local needs.

To be eligible for the new seasonal borrowing privilege, a member bank must satisfy certain conditions:

1. Lack reasonably reliable access to national money markets;
2. Have a seasonal need that arises from a recurring pattern of movement in deposits and loans that persists for at least 8 weeks;
3. Meet from its own resources that part of the seasonal need equal to at least 5 per cent of its average deposits over the preceding calendar year;
4. Arrange with its Reserve Bank for seasonal credit in advance of the actual need for funds.

Smaller banks that do a substantial volume of loan business in farm or resort areas are examples of institutions that may need to use the seasonal borrowing privilege, but they by no means exhaust the possibilities. For some banks, seasonal credits may remain outstanding for a number of months.

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## *EMERGENCY CREDIT*

Emergency credit is made available to individual banks or groups of banks facing financial stringency caused by adverse local, regional, or national financial developments. In such operations the Federal Reserve serves its traditional role as the ultimate provider of liquidity—"lender of last resort"—to the economy.

A good example of this function is the action taken by the Federal Reserve in the summer of 1970 following insolvency proceedings by a major railroad corporation. When that corporation defaulted on its outstanding commercial paper, investors became generally concerned about the liquidity of a number of other large issuers of com-

mercial paper, and as a result they cut back on their acquisitions of such paper. This forced issuers of maturing commercial paper to turn suddenly, and in volume, to their back-up credit lines at banks, thereby exerting a substantial squeeze on the resources and reserve positions of the banks involved. Since the problem was one of meeting a general demand for liquidity without adverse repercussions on business confidence and since the demands of the commercial paper issuers on banks did not represent a net expansion in the total demand for credit, the banks involved were allowed to cover some of their added needs for funds through special borrowings at Reserve Bank discount windows. Interest rate ceilings under Regulation Q on large CD's with relatively short maturities, which were below market rates of interest at the time, were also suspended, thus permitting banks to bid competitively for needed deposit funds in the market.

In its role as ultimate provider of liquidity the Federal Reserve also stands ready to provide credits to nonmember institutions under emergency conditions. Although no credits of the latter type have actually been provided in recent years, on several occasions—when it appeared that net deposit drains on nonmember banks, savings banks, or savings and loan associations might create general liquidity problems—the machinery for emergency lending was put in place on a contingency basis. Emergency lending to nonmember institutions is provided at a higher interest rate than to members and only after special authorization by the Board of Governors.

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### *DISCOUNT RATE*

The cost of member bank borrowing is set by each Reserve Bank's discount rate—the rate of interest established by its board of directors, subject to review and determination by the Board of Governors. As envisioned in the original Federal Reserve Act, each Reserve Bank would set a discount rate in accord with its regional banking and credit conditions. In the early years of the System it was assumed that in its review process the Board would look particularly to regional banking conditions; but over the years, the progressive integration of regional credit markets into a fluid national market gradually produced a national perspective for discount rate determination. Establishment by Congress of national economic goals in the

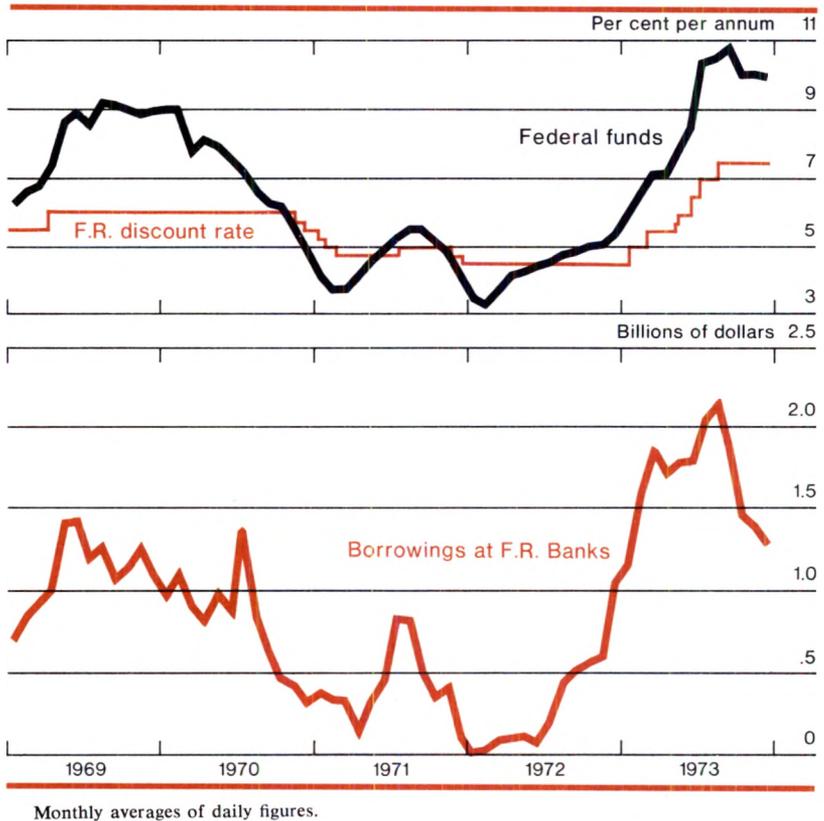
## Purposes and Functions

Employment Act of 1946 further enhanced the role of national considerations in proposals for changes in Reserve Bank rates and in the Board's determinations with respect to proposed changes.

Because the discount rate establishes the cost to members of reserves borrowed from Reserve Banks, it plays a significant role in the decisions that a bank makes about whether to borrow at the Federal Reserve discount window. Although bankers may be reluctant to borrow from the Federal Reserve and may do so only to cover temporary adjustment needs, a low discount rate in relation to other rates on money market claims makes it more likely that a bank will seek funds at the discount window instead of using alternative sources.

### CHART 8

SELECTED INTEREST RATES, AND MEMBER BANK BORROWINGS



For example, if the rate on short-term Treasury bills is high in relation to the discount rate, a member bank may prefer to borrow from the Federal Reserve rather than sell Treasury bills from its portfolio. Similarly, if the rate charged for reserves obtained through the Federal funds market is high, a bank has an incentive to use the discount window. Or if rates are high on large time CD's, which may be sold in some volume and relatively impersonally in the money market, the demand for borrowing from the Federal Reserve is stimulated. Consequently, when spreads in these various market rates over the discount rate make it profitable, and particularly if economic activity is buoyant and credit demands on banks are strong, member banks in need of funds tend to make increasing use of the discount window.

To help control the volume and profitability of borrowings at the discount window, the Federal Reserve adjusts the discount rate from time to time to relate it more closely to other money market rates. On occasion, however, changes in the discount rate may signal Federal Reserve concern over unfolding economic developments and a possible intent to alter current and future policy accordingly. Reactions of the financial community to such signals—"announcement effects"—may exert a significant impact on securities markets because market participants will tend to adjust their investment strategies in anticipation of coordinated System actions via other policy instruments. Changes in the discount rate, therefore, must be interpreted in terms of how they complement, or are likely to be complemented by, other policy actions.

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***COORDINATION OF DISCOUNT AND  
OPEN MARKET OPERATIONS***

In gauging what volume of reserves to supply through open market operations to achieve monetary policy objectives, the FOMC must take account of the extent to which member banks may wish to borrow reserve funds from the Reserve Banks, or to repay outstanding borrowings. Member bank borrowings generally rise during periods of monetary stringency and fall during periods of monetary ease.

## *Purposes and Functions*

These tendencies have to be taken into account in formulating open market strategy.

In periods of monetary restraint for example, if open market operations provide a smaller increase in nonborrowed reserves than the banks would like to have, given prevailing market conditions, the banks may offset this shortfall in desired reserves to a substantial extent, at least initially, by increasing their borrowing from the Reserve Banks. But because Federal Reserve credit is available only on a temporary basis, the upswing in such borrowing could moderate only temporarily the restraint being exerted on the availability of credit and money through open market operations. Rather, banks would soon need to obtain other funds to repay their debt to the System—by bidding more aggressively for funds in the money market, by liquidating assets such as Treasury bills, or by restricting the expansion of their loan portfolios. Efforts by banks to obtain funds through alternative money market transactions or by modifying loan policies would put upward pressure on short-term market rates, transmit reserve shortages to other banks, set in motion upward interest rate adjustments throughout credit markets, and lead in time to a slowing of expansion in the money stock.

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## *CHANGES IN RESERVE REQUIREMENTS*

Legislation enacted in 1935, with subsequent amendments, gives the Board of Governors authority, within prescribed limits, to set minimum ratios for the reserves that member banks must hold against their demand and time deposits.<sup>1</sup> These limits range from 7 to 22 per cent for demand deposits and from 3 to 10 per cent for time deposits, depending on the size of bank. As explained in Chapter 3,

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<sup>1</sup> As banks have diversified their liabilities in recent years, the Federal Reserve has broadened the definition of deposits to cover such liabilities and bank-related claims as commercial paper issued by bank holding companies or non-bank subsidiaries to finance credit expansion by the affiliated bank or banks, liabilities of banks to their foreign branches (so-called Euro-dollar borrowings), and finance bills (working capital acceptances) issued by banks.

member bank reserves consist of cash held in member banks' vaults and of deposit balances held at Federal Reserve Banks.

Actions by the Federal Reserve to change reserve requirements do not affect the total amount of reserve funds held by the member banks as a whole. Instead, they change the volume of deposits and the volume of loans and investments that member banks can support with the volume of reserves on hand. When required reserve ratios are raised, the amount of deposits a given supply of reserves can support is reduced. Correspondingly, when ratios are lowered, the volume of liabilities and credit the banking system can support on a given reserve supply is increased. Thus, an increase in reserve requirements is a restrictive action and a decrease an expansive action.

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***USE AS A POLICY INSTRUMENT***

As an instrument of monetary management, adjustments in required reserve ratios are less flexible than open market operations or changes in the discount rate. There are two reasons for this. One is that changes in the ratio affect all member banks in a given class at once. The second is that for each member bank the required reserve ratio is the basis for current and forward decisions by the bank's management concerning the composition and maturity of liabilities and of loans and investments. Frequent changes in that ratio complicate in some degree the task of forward planning by the management.

Furthermore, even fairly small changes in reserve requirements, such as  $\frac{1}{2}$  of a percentage point, may result in relatively large changes in the margin between total reserves and required reserves. Thus even a small change in the required reserve ratio may have a rather large potential impact on deposits and bank credit.

Changes in reserve requirements are normally undertaken as part of a monetary policy strategy that is designed to help moderate inflationary or recessive tendencies in the economy. Reserve requirement actions have an immediate impact on banking liquidity and on costs in all parts of the country. In contrast, if the same amount of reserve changes were effected through open market operations, there would be no announcement effect; instead, the impact would tend to be concentrated at first on banks at money market centers, filter-

## *Purposes and Functions*

ing subsequently to smaller and more remotely located banks after some lag.

Some reserve requirement actions, however, are not designed to affect stabilization policy. For example, a cut in reserve requirements for member banks was implemented late in 1972 to realign reserve requirements among member banks on a more equitable basis and to compensate for a large, once-and-for-all reduction in bank reserve availability incident to a reform of the System's check-collection procedures. When changes in reserve requirements are made for purely structural reasons, the potential impact on credit market conditions and money growth can be offset by open market operations.

Regardless of the purpose of a particular change in reserve requirements—whether it be to support the thrust of monetary policy or to restructure requirements—it is always necessary to coordinate the reserve requirement changes closely with open market and discount operations. For instance, changes in reserve requirements may be timed to coincide with seasonal needs to supply or absorb reserves, thus replacing a certain amount of open market operations that otherwise would have been needed at the time. More generally though, the fact that the Federal Reserve can use offsetting open market actions and lending operations to adjust the net amount of reserves absorbed or provided by changes in reserve requirement ratios provides a cushioning mechanism that enables the banking system to make a smooth adjustment to a change in reserve requirements.

Additional flexibility may be provided by the reserve requirement instrument through selective changes in the structure of requirements. For example, in the new system of graduated requirements established in late 1972 for demand deposits, future changes may be limited to one or a few deposit-size categories or be made larger for some categories than for others. For other deposits, requirements have typically been different for savings and time accounts and have often been changed independently of one another. Similarly, for time deposits alone, requirements have been lower for small deposits, and additional size differentiations could, of course, be introduced.

Finally, the Federal Reserve established (effective in June 1973) a marginal reserve requirement on large time CD's of banks. This requirement applied to the marginal amount by which a bank's large CD's and related money-market-type liabilities issued to the public exceed the total that the bank had outstanding on a given base date. Earlier in 1973 major banks had been promoting large CD's ag-

gressively as a source of funds to finance rapidly expanding loans to business. The marginal reserve requirement was introduced in an effort to dampen growth of business loans by raising the cost of CD funds being used to finance such loans.

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### **STRUCTURE OF RESERVE REQUIREMENTS**

The reserve requirement percentages that were in effect on June 30, 1974, for demand and time deposits are shown in Table 5. For both classes of deposits the percentages are graduated, but for demand deposits the graduation involves more steps. The demand deposit ratios apply to "net demand deposits" (as defined in footnote 1 to Table 5). A bank with net demand deposits of \$100 million, for instance, would have reserve requirements of 8 per cent on the first \$2 million, 10½ per cent on the next \$8 million, and 12½ per cent on the remaining \$90 million—or \$12,250,000 (\$160,000 + \$840,000 + \$11,250,000).

As of June 30, 1974, all savings deposits were subject to a straight 3 per cent requirement. These deposits are held by individuals or non-profit organizations, are ordinarily evidenced by a "passbook," and in practice seldom require a notice for withdrawal.<sup>2</sup> "Other time deposits" consist of accounts with at least 30 days to initial maturity or with a requirement that there be 30 days' notice before withdrawal; these include time CD's and "time open accounts." On these deposits the requirement ratios were graduated a little. On deposits of \$5 million or less, the ratio was 3 per cent. Amounts in excess of \$5 million were subject to two ratios: one that may be considered regular; the other temporary. As Table 5 shows, the regular requirement was 5 per cent, and the marginal one was 3 per cent. Requirements of this temporary type, referred to as marginal, may be removed as inflation is brought under control.

For any given bank, the total of its vault cash and of its deposits at the Federal Reserve must be sufficient to satisfy requirements.

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<sup>2</sup> Special deposits such as Christmas and vacation club accounts held by individuals are treated as savings accounts for reserve requirement purposes. Technically, a bank may require a wait of 30 days before permitting withdrawals from savings accounts.

## Purposes and Functions

**TABLE 5**  
RESERVE REQUIREMENTS ON DEPOSITS OF MEMBER  
BANKS, June 30, 1974

Type of deposits, and portion (in millions of dollars)	Per cent of deposits	
Net demand deposits: <sup>1</sup>		
2 or less .....	8	
2-10 .....	10½	
10-100 .....	12½	
100-400 .....	13½	
Over 400 .....	18	
Time and savings deposits:		
Savings .....	3	
Other time:		
5 or less .....	3	
Over 5:		
Regular requirement .....	5	} 8
Marginal requirement .....	<sup>2</sup> 3	
	Legal requirement range	
	Minimum	Maximum
Net demand deposits:		
Reserve city banks .....	10	22
Other banks .....	7	14
Time deposits .....	3	10

<sup>1</sup>Demand deposits subject to reserve requirements: gross demand deposits (including interbank) less (1) cash items in the process of collection and (2) demand balances due from domestic banks other than U.S. branches of foreign banks.

<sup>2</sup>This temporary marginal reserve requirement—which was last adjusted in December 1973—applies to the amounts by which increases in bank issues of time deposits of large size (\$100,000 or more), finance bills, and bank-related commercial paper exceed a base. The base—set as the sum of large time deposits (\$100,000 and over), finance bills, and bank-related commercial paper—is \$10 million or the amount outstanding as of the week ending May 16, 1973, whichever was larger. On amounts of these instruments in excess of the base, a required reserve ratio of 8 per cent (the 5 per cent plus an additional 3 per cent) is levied.

Since 1968 the requirements for a particular week have been computed on liabilities 2 weeks before.<sup>3</sup> Consequently, the volume and composition of liabilities in the current statement week can have no impact on current reserve requirements; they can only affect requirements 2 weeks hence.

<sup>3</sup> Also since 1968, vault cash used to satisfy reserve requirements is the daily average of such cash for the week 2 weeks earlier.

In any week, excess reserves up to 2 per cent above requirements may be carried into the following week to help satisfy that week's requirements. And any deficiency, up to 2 per cent, may be carried into the next week. A penalty rate equal to 2 percentage points above the discount rate is levied against deficiencies beyond the 2 per cent carry-forward. Such deficiencies occur rarely. In the event that they occur too often, the Board of Governors is empowered to take further penalizing action against the offending bank.

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### ***CEILING INTEREST RATES ON TIME DEPOSITS***

The Board of Governors has responsibility for establishing maximum interest rates that member banks may pay for savings and time deposits. Similar responsibility for setting ceiling rates payable by nonmember commercial and savings banks and by insured savings and loan associations, respectively, rests with the Federal Deposit Insurance Corporation and the Federal Home Loan Bank Board. All actions as to rate ceilings are taken only after consultation among these agencies. The structure of ceiling rates so established contributes to equitable competition among banks and thrift institutions for interest-bearing deposits of the public.

Because of the structure of their assets, nonbank thrift institutions in recent years have been at some disadvantage in competing for funds, particularly during periods of monetary stringency. The principal assets of these institutions are home mortgages, which are long-term and illiquid assets. Assets of banks, on the other hand, generally have a shorter average maturity and they are much more widely distributed as to type—including securities, business loans, and consumer loans, among others, as well as mortgages.

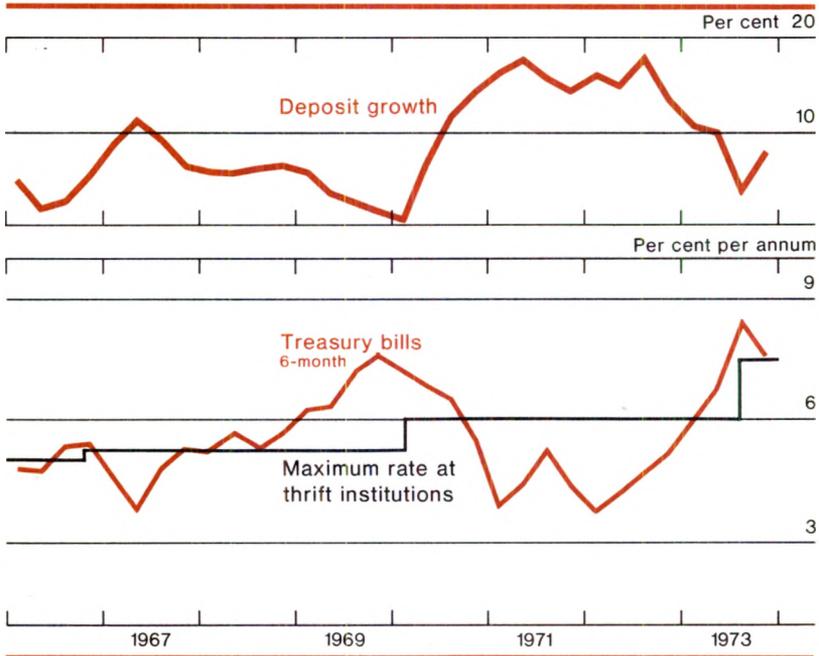
Because portfolios of mortgage loans turn over slowly, a rise in their average yield tends to lag well behind a general advance in market interest rates. Thus, when interest rates on market securities rise rapidly, the returns from the assets of nonbank thrift institutions do not keep pace. The deposit liabilities of such institutions, on the other hand, are short-term. Hence, during periods of generally rising rates, competitive pressures tend to develop for across-the-board increases in the rates paid on deposits. In the absence of ceilings,

## Purposes and Functions

these pressures could lead to unduly sharp increases in rates and consequently to operating losses, which might impair the solvency of some institutions.

While helping to preserve equity among banks and thrift institutions, ceilings on rates for savings and time deposits may also limit the ability of both groups of institutions to compete with issuers of market securities for savings at times when rates of interest in both the money and bond markets have become high relative to the ceilings. In this way, the existence of rate ceilings can affect flows of

**CHART 9**  
DEPOSIT GROWTH AT THRIFT INSTITUTIONS,  
AND SELECTED INTEREST RATES



Interest rates: Quarterly data. Treasury bills, averages of daily rates. Thrift institutions, averages of highest ceiling rates payable on consumer-type deposits at mutual savings banks and savings and loan associations. During the period July 1–Oct. 31, 1973, when the rate ceiling on 4-year, \$1,000 minimum-denomination consumer-type certificates of deposit was suspended, most institutions offered rates no higher than 7½ per cent on these deposits.

Deposit growth: Quarterly changes, at seasonally adjusted annual rates, in total deposits at mutual savings banks and in savings capital at savings and loan associations.

funds through banks and related institutions and thereby influence the availability of credit to particular types of borrowers, such as businesses and home buyers. During periods of restrictive monetary policy, therefore, unless ceilings are reasonably adjusted to levels of market rates, the administration of rate ceilings may adversely affect borrowers who rely heavily on either banks or thrift institutions to meet their credit needs, as compared with borrowers who have access to the open market.

Many proposals have been advanced in recent years to remove or to limit the application of ceilings on interest rates for time and savings deposits. Since May 1973 ceiling rates on large time deposits—\$100,000 or more—have been suspended. Most of these deposits are sold by banks to corporations, State and local governments, and other large, active investors; and the bulk of them take the form of negotiable time CD's. Ceiling rates remain, however, on smaller consumer-type time and savings deposits, which are the focal point of competition among banks and nonbank thrift institutions. Proposals to remove ceiling rates on consumer-type time deposits have often been accompanied by proposals to widen the services and the lending powers of nonbank thrift institutions so that these institutions will have a broader and more flexible earnings base.

The ceiling rates of interest applicable to time and savings deposits at commercial banks as of June 30, 1974, are shown in Table 6. These ceilings are moderately lower than those for nonbank thrift institutions.

During periods of economic expansion, commercial banks that are particularly aggressive in extending credit to large businesses often obtain funds to finance those loans by issuing large CD's. Sales of these instruments, when not constrained by rate ceilings, are an effective means of attracting a large volume of funds in a short period of time. Because these large CD's are usually sold to investors that are highly sensitive to rate differentials, a small change in offering rates may induce large swings in the amounts of CD's sold. For that reason, when ceilings on such deposits are below rates available on competitive market instruments, large net run-offs tend to occur as holders switch to higher-yielding money market securities.

That is what happened in the tight money episodes of 1966 and 1969–70. In those periods ceiling rates on CD's were not raised to remain competitive with market rates—in an attempt to exert pressure on the banks that were most responsible for making loans to large

## Purposes and Functions

**TABLE 6**

MAXIMUM INTEREST RATES PAYABLE ON TIME AND SAVINGS DEPOSITS AT COMMERCIAL BANKS  
June 30, 1974

Type, and maturity	Per cent per annum
Savings deposits	5
Other time deposits: <sup>1</sup>	
Less than \$100,000:	
30-89 days	5
90 days-1 year	5½
1-2½ years	6
2½ years and over	6½
4 years and over <sup>2</sup>	7¼
\$100,000 and over	No ceiling

<sup>1</sup> Multiple- and single-maturity.

<sup>2</sup> Minimum denomination for deposits of this maturity is \$1,000.

corporate businesses. As a result, businesses began to place increasing reliance on obtaining funds in the commercial paper and bond markets, sources of funds that are not readily available to such borrowers as small businesses and consumers. The result of these developments was a great deal of churning in financial markets, a loss to some degree of the stability in financial flows and risk-taking associated with financial intermediation, and perhaps a disproportionate credit squeeze on those bank customers unable to shift to open market sources of funds.

In June 1970, following the bankruptcy of a major railroad, ceiling rates on short-maturity (30- to 89-day) time CD's were suspended to permit banks to bid freely for the funds needed to cover large, unexpected calls on bank credit lines by businesses that were being forced out of the commercial paper market at that time. Thereafter, short-term market rates dropped below rate ceilings on longer maturity bank CD's, so the ceilings on those instruments, which were still in effect, were no longer a deterrent to bank issuance of such instruments. In May 1973, when advances in market interest rates above ceilings again began to make longer maturity CD's noncompetitive, ceilings on longer maturity CD's were also suspended, and as of mid-1974 they had not been reinstated. The intent of the continuing suspension has been to permit smoother and more equitable adjustments, by both banks and borrowers to changing market conditions.

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## **MARGIN REQUIREMENTS**

The Securities Exchange Act of 1934, with amendments, authorizes the Board of Governors to regulate the use of credit for purchasing or carrying securities. In exercising this responsibility the Board imposes limitations on the amount of such credit that may be provided by brokers and dealers (Regulation T), banks (Regulation U), and other lenders (Regulation G). In order to prevent borrowers from obtaining more credit abroad than lenders are permitted to supply in this country, as well as to improve compliance generally, all U.S. persons who use securities credit are required to comply with the Board's margin regulation (Regulation X).

Regulatory limitations apply to corporate stocks (and bonds convertible into stocks) registered on national exchanges or designated as "over-the-counter margin stocks."<sup>4</sup> Brokers and dealers are permitted to extend credit only on such stocks. Brokers and dealers extend the bulk of all regulated security credit; in recent years they have accounted for more than four-fifths of such credit.

All bank loans extended for purposes of financing the purchase or carrying of equity securities that fall within the definition of margin stocks are subject to the margin requirement if collateralized by any stock. Other bank loans with similar collateral but for a different purpose are not. In addition, bank loans extended to customers for the purpose of purchasing or carrying nonmargin stocks are not subject to Regulation U.

The amount that lenders may advance against securities is always less than the current market value of the securities pledged as collateral at the time the loan is made. The difference between the two is termed the initial margin. For example, if a loan of \$3,500 is required to be secured by stock having a market worth of at least \$10,000, the customer's margin is at least \$6,500, or 65 per cent of the market

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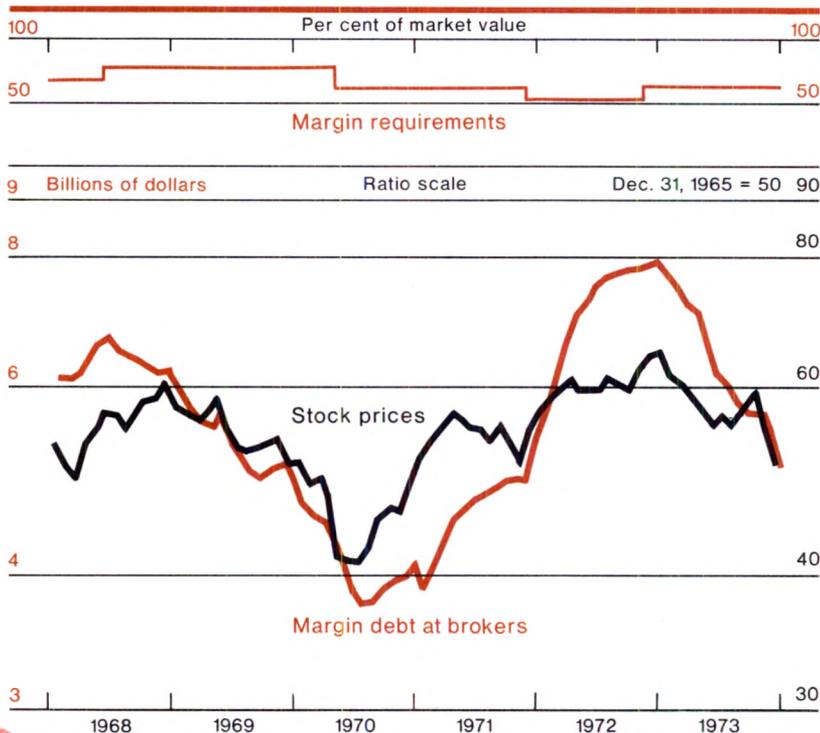
<sup>4</sup> The Federal Reserve maintains a list of selected stocks that are not listed on a registered national exchange but that have certain characteristics similar to listed stocks. The stocks on this list, which are designated as over-the-counter margin stocks, are treated the same as listed stocks for margin purposes. Such limitations also apply to mutual fund shares and a variety of securities—such as warrants, rights, and puts and calls—that may be purchased with the object of controlling an exchange-registered security or margin stock.

## Purposes and Functions

value, and the maximum loan value of the stock is 35 per cent. Thus, the higher the margin requirement, the less that can be loaned. In recent years margin requirements have varied from 50 to 80 per cent on stocks and from 50 to 60 per cent on convertible bonds.

Federal Reserve regulations require the lender to obtain the specified margin in connection with the purchase or pledging of securities to be used as collateral. If the market value of the security that is used as collateral for the loan subsequently declines, the regulation does not make it necessary for the borrower either to put up additional collateral or to reduce his indebtedness. Similarly, if the Federal Reserve raises the margin requirement, borrowers need not reduce existing loans (or increase the amount of collateral deposited with the

**CHART 10**  
MARGIN REQUIREMENTS AND RELATED ITEMS



Stock prices, New York Stock Exchange index, monthly averages. Margin debt, end-of-month figures for credit extended on stocks or related equity instruments and secured at least in part by stocks.



## *Other Policy Instruments*

broker, bank, or other lender). However, the lender making the loan may require additional collateral at any time if he deems it necessary. In fact, the New York Stock Exchange requires brokers to issue calls for more margin if credit extended exceeds 75 per cent of the market value of the collateral in a customer's margin account, and a number of brokers require additional margin even before the Exchange-imposed level is reached.

In the event that borrowers whose accounts have become undermargined—whether because of declines in market prices or increases in margin requirements—sell any of the securities they have pledged as collateral, they must apply a portion of the proceeds of such sales to reduce their indebtedness. In recent years the portion of the proceeds to be applied to reduce indebtedness has been 70 per cent. There is an exception to this rule: Borrowers with margin at or above a specified level (40 per cent on June 30, 1974) are permitted to apply all of the proceeds of a sale of securities toward a purchase of securities when the purchase is made on the same day as the sale.

The main purposes of margin requirements are to minimize the danger of excessive use of credit in financing stock market speculation and to prevent the recurrence of speculative stock market booms based on credit financing, such as culminated in the collapse of stock prices in 1929 and the subsequent severe liquidation of securities credit. Although sharp changes in stock prices are always possible, the absence of excessive credit-financed speculation is likely to be an important factor in limiting cumulative price declines and in minimizing the risk that stock market fluctuations will have disruptive effects on financial markets and the economy generally, as well as on the individual investor.

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## *SELECTIVE CREDIT CONTROLS*

During and after World War II and in the Korean war period the Federal Reserve was given the additional responsibility for selective regulation of consumer instalment credit, and in the Korean war this responsibility was extended to real estate credit as well. For both types of credit the objective was to encourage postponement of spend-

## *Purposes and Functions*

ing on durable goods as a means of releasing scarce national resources for war production and of minimizing inflationary pressures on prices and wages. The controls established for consumer credit set minimum downpayments and maximum maturities on instalment purchases of consumer durable goods; those on real estate credit set maximum maturities and maximum loan-to-value ratios on mortgage-financed purchases of housing. As of mid-1974 no such controls were authorized. But the Credit Control Act of 1969 does provide that “whenever the President determines that such action is necessary or appropriate for the purpose of preventing or controlling inflation generated by the extension of credit in an excessive volume, the President may authorize the Board [of Governors] to regulate and control any and all extensions of credit.”

In some other countries the central bank’s authority extends to programs that grant favorable credit terms to certain classes of borrowers—such as exporters, farmers, and small businesses—because these borrowers are at a disadvantage in competing for credit funds with large businesses through usual market channels and because the well-being of such borrowers in the economy is considered to warrant a special financing subsidy. The United States has a number of financial programs with somewhat similar objectives, but all of them are administered by public agencies other than the Federal Reserve. By keeping decisions regarding the support to be given to particular groups of borrowers separate from monetary policy decisions, which affect the flow of credit and money generally, the risk of inflationary credit expansion through high-powered central bank money is reduced. □

# The Federal Reserve in the International Sphere

## *Chapter Six*

The U.S. economy is an important, interdependent part of the world economy. Economic and financial developments in this country have a major influence on the evolution of economic activity in the rest of the world. In turn, the U.S. economy is significantly affected by economic and financial developments abroad. The U.S. dollar has long played a leading role in international monetary arrangements as the national currency most used in international transactions and most widely held in official reserves.

The operations and activities of the Federal Reserve are affected by these international economic and financial interrelationships in various ways:

- The Board of Governors and the FOMC take account of the U.S. balance of payments, movements in exchange rates, and other international economic and financial developments in making U.S. monetary policy.
- The Federal Reserve Bank of New York handles the mechanics of official reserve transactions with foreign central banks, and in some cases these transactions call for Federal Reserve open market operations to offset undesired effects on domestic monetary conditions.

## *Purposes and Functions*

- Transactions may be undertaken by the Federal Reserve in the foreign exchange markets, and these transactions, as well as similar transactions by foreign central banks, may be facilitated by currency “swap” operations.

- The Board of Governors takes various actions of a regulatory or supervisory nature that affect the international transactions and foreign operations of U.S. banks and the U.S. activities of foreign banks.

In addition, the Federal Reserve plays an advisory and consultative role within the U.S. Government in discussions of international financial matters; it supports other agencies of the U.S. Government in this country’s participation in various international organizations; and it maintains informational contacts with the central banks of other countries.

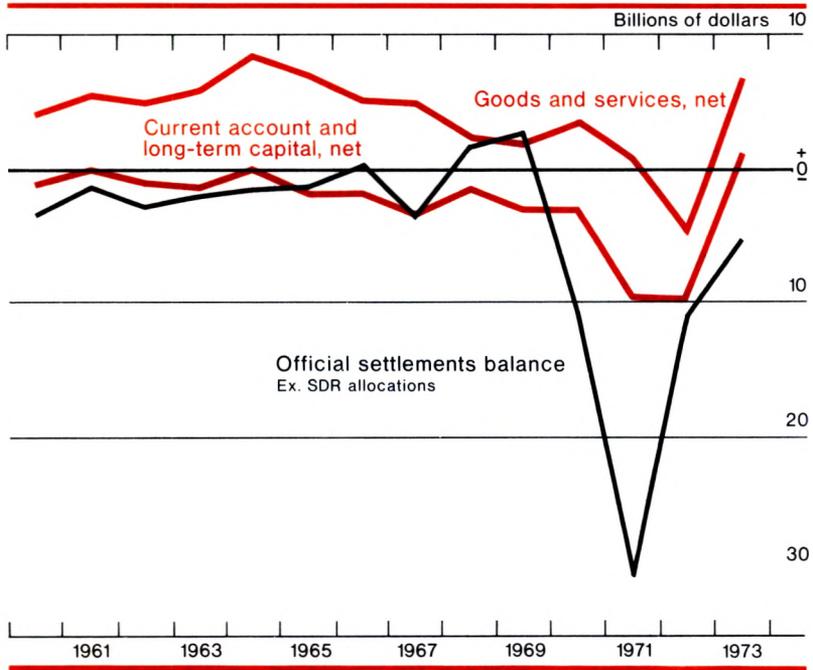
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## *MONETARY POLICY AND INTERNATIONAL ECONOMIC DEVELOPMENTS*

In forming the judgments about prospective economic developments that underlie monetary policy decisions, Federal Reserve policy-makers regularly take into account the relationships that link the domestic economy to the rest of the world—for example, the forces that affect foreign demand for U.S. goods and services, the determinants of supply and demand in this country for U.S. products that compete with imports, the factors influencing international flows of funds, and the effects of international flows of funds on domestic financial markets. These relationships are viewed from two related perspectives. First, developments in the rest of the world may have significant implications for the domestic economic objectives of the United States and for the use of monetary policy in attaining these objectives. Second, economic developments in this country have important influences on the net balance of goods and services transactions and the net flow of long-term and liquid capital between the United States and foreign countries, which in turn affect the international value of the dollar and the international reserve position of the United States.

Changes in exchange rates between the U.S. dollar and other major currencies, such as those that occurred in 1971–73, are among the forces that have important effects on demands for U.S. goods as com-

**CHART 11**  
U.S. BALANCE OF PAYMENTS



Data are from U.S. Dept. of Commerce.

pared with foreign goods. Also, changes in the pressures of demand in other countries are often communicated to the U.S. economy—sometimes through changes in the volume of international trade, and at other times through effects on the prices of basic commodities exported or imported by the United States. Conversely, developments in the United States affect the U.S. trade position. For instance, rapid growth of aggregate demand and disproportionate increases in U.S. prices will tend to encourage larger imports and discourage higher exports.

Capital flows between the United States and foreign financial centers also are taken into account in formulating U.S. monetary policy. Such flows may have important effects in particular sectors of U.S. financial markets. In addition, they may at times affect, as well as reflect, confidence in the value of the dollar both here and abroad.

International capital flows tend to be generated by changes in international differentials in interest rates—as when U.S. interest rates have

### *Purposes and Functions*

fallen in response to slack demands in domestic monetary markets, or conversely, have risen in a period of strong credit demands. They may also be generated by expectations of changes in exchange rates. Funds tend to flow into the United States when the dollar is expected to rise in value relative to foreign currencies, and conversely, they tend to flow out when the dollar is expected to decline in value.

Minor modifications in the instruments of monetary policy can at times be of some help, at least temporarily, in influencing undesired outflows or inflows. For example, the reserve requirements imposed on borrowing by U.S. banks from abroad can be varied so as to moderate sharp swings in such borrowing. Consideration may be given to international capital flows in decisions about the timing of discount rate changes. Or to moderate downward pressures on U.S. short-term interest rates that might cause a capital outflow, the Federal Reserve may give consideration to purchasing long-term rather than short-term securities in its open market operations to supply reserves to the banking system.

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## *INTERNATIONAL RESERVE TRANSACTIONS*

The extent to which an imbalance in the international payments and receipts of the United States is reflected in a movement of exchange rates or in an over-all surplus or deficit in the balance of payments depends upon the extent to which foreign central banks or the U.S. monetary authorities intervene in foreign exchange markets. At one extreme, if exchange rates were allowed to float freely without any official intervention in exchange markets, any tendency for a net outflow of private funds from the United States would lead to a depreciation of the dollar in exchange markets; any tendency for a net inflow would lead to an appreciation. These changes in exchange rates would tend, in turn, to limit inflows or outflows. However, when central banks are willing to buy or sell dollars in quantity in order to maintain exchange rates within a narrow range around a fixed parity, as was generally the case during the postwar period to early 1973, or in order to moderate market fluctuations in exchange rates, as was generally the case after early 1973, a significant part or even all of the tendency for a net flow of private funds into or out of the United

States is reflected in an over-all surplus or deficit in the U.S. balance of payments.<sup>1</sup>

These surpluses or deficits are settled either by transfers of primary international reserve assets—gold, SDR's,<sup>2</sup> or reserve positions in the International Monetary Fund (IMF)—or by changes in U.S. liabilities to foreign official institutions.

Normally, surpluses or deficits in the U.S. balance of payments, either because of the way they are financed or because of offsetting actions by the Federal Reserve, do not have a direct effect on the U.S. monetary base. This is true even when surpluses or deficits are very sizable, as U.S. deficits were, for instance, in 1970–72. In this respect U.S. experience differs from that in other countries, where balance of payments surpluses often have a strongly expansionary effect, and deficits a contractionary effect, on the monetary base. This is discussed further in the later section on reserve transactions with foreign central banks.

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### ***OWNERSHIP AND MANAGEMENT OF INTERNATIONAL RESERVE ASSETS***

The international reserve assets of the United States are owned mainly by the U.S. Treasury. They comprise gold, SDR's, the reserve position of the United States in the IMF, and foreign currency balances (part of which may be held by the Federal Reserve). The SDR's, a small part of the gold, and the Treasury's foreign currency balances (which are generally small) are held by the Treasury's Exchange Stabilization Fund, which is operated by the Federal Reserve Bank of New York as fiscal agent of the United States.

At times the Federal Reserve has held in its own name fairly sizable amounts of the country's international reserves in the form of foreign currency balances. Such holdings can arise under the swap network, as described later in this chapter, or can result from direct market purchases of currencies by the Federal Reserve Bank of New York under FOMC authorization.

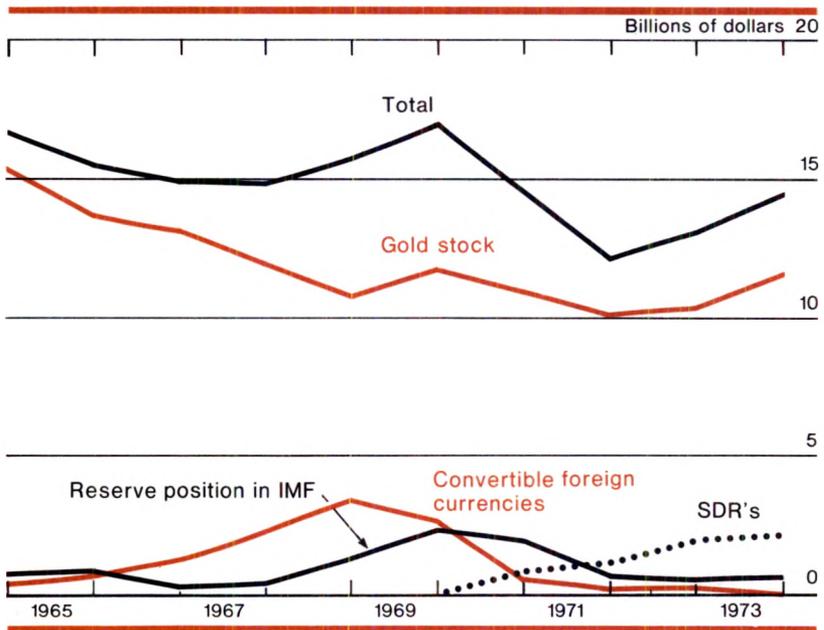
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<sup>1</sup> More precisely, in a surplus or deficit on the "balance of official reserve transactions."

<sup>2</sup> As noted in Chapter 3, SDR's are Special Drawing Rights in the International Monetary Fund; the first SDR's were created on Jan. 1, 1970.

## Purposes and Functions

**CHART 12**  
U.S. RESERVE ASSETS

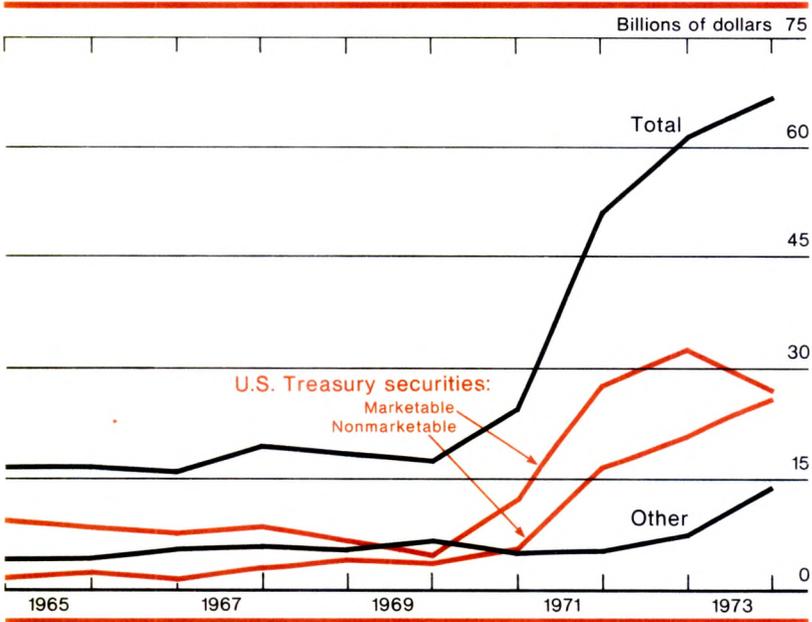


Other countries also hold primary reserve assets in the form of gold, SDR's, and reserve positions in the IMF. But in addition many of them hold an important part of their international reserves in the form of U.S. money market instruments, especially U.S. Treasury securities. Their holdings of U.S. Treasury securities include marketable issues and special nonmarketable issues, mostly payable in U.S. dollars. Other reserve holdings include balances with commercial banks in the United States and elsewhere<sup>3</sup> and securities and deposits held with central banks in countries other than the United States.

Some foreign official institutions have part of their gold kept in custody—that is, “under earmark”—at the Federal Reserve Bank of New York. That Bank also holds in custody most of the U.S. Treasury securities owned by foreign monetary authorities. In most instances when foreign central banks decide to buy or sell U.S. Treasury se-

<sup>3</sup> Foreign central banks' deposits in U.S. banks are reserve liabilities of the United States, but their dollar deposits with banking institutions operating abroad are not.

**CHART 13**  
**FOREIGN RESERVE ASSETS IN THE UNITED STATES**



curities, the Federal Reserve Bank of New York executes the transaction—sometimes in the market and sometimes through direct transactions with the Federal Open Market Account. The foreign central banks also have non-interest-bearing deposit accounts at the Federal Reserve, but these are working balances, and they are generally kept relatively small.

**RESERVE TRANSACTIONS WITH FOREIGN CENTRAL BANKS**

It is mainly by intervening in foreign exchange markets in response to an imbalance in international payments that foreign central banks acquire or relinquish dollar assets. Because of the wide use of the dollar in international trade and finance, there is active buying and selling of dollars against other countries' currencies in foreign exchange markets here and abroad. If and when the exchange rate—as

## *Purposes and Functions*

determined by the demand for and supply of dollars by businesses, investors, and commercial banks—tends to move outside a range set by international agreement or by national policy, a central bank may intervene in its market by buying or selling dollars in order to influence the rate. When rates are allowed to float, as has been the case for many important currencies since early 1973, central banks have no obligation to support exchange rates within prescribed margins, but they may intervene from time to time to moderate exchange rate fluctuations.

In recent years payments imbalances between the United States and other countries have been settled almost exclusively by changes in U.S. official liabilities rather than by transfers of primary reserve assets. That is, foreign central banks have increased their holdings of U.S. Treasury securities with dollars acquired through exchange market intervention, or have reduced their holdings in order to sell dollars. Such market interventions and transactions in Treasury securities, taken together, have no effect on member bank reserves, apart from the transitory effects of fluctuations in the deposits of foreign central banks at the Federal Reserve Bank of New York<sup>4</sup> or of transitory fluctuations in Treasury deposits at the Reserve Banks—such as occur when the Treasury issues or redeems nonmarketable special securities for foreign central banks.

When international reserve transactions take the form of transfers of primary reserve assets between the United States and foreign countries, the bank reserve base is directly affected, but the reductions or enlargements of member bank reserves in this case can be offset by Federal Reserve open market purchases or sales of Treasury securities. This is a normal feature of the procedures by which monetary policy is executed in the United States.

For example, if a foreign central bank were to use dollars acquired through exchange market intervention to purchase gold or SDR's from this country, there would be an associated reduction in member bank reserve balances. The reduction in such balances would occur as the foreign central bank transferred funds out of member banks into its

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<sup>4</sup> The amounts of funds that flow through these deposit accounts are very large, but the changes in outstanding balances are generally small. In 1973, for example, month-end foreign deposits at the Federal Reserve varied only between \$250 million and \$455 million.

account at the Federal Reserve before it bought the gold or SDR's. But in the absence of a monetary policy decision to the contrary, such a reduction in bank reserves would normally be offset by Federal Reserve open market purchases.

At the time the foreign country's purchase of primary reserve assets occurred, the foreign account would be restored to its original level, and the books of the Federal Reserve would show an offsetting decline in gold certificate or SDR certificate assets, as was explained in Chapter 3. No change would occur in the Treasury balance at the Federal Reserve if gold or SDR certificates were withdrawn in an amount equal to the Treasury's sale of gold or SDR's.<sup>5</sup> No further change in member bank reserves would occur.

Thus, whether the international reserve transactions that accompany foreign central bank intervention in the exchange markets take the form of transactions in U.S. Treasury securities or the form of transfers of primary reserve assets, in neither case are there any but transitory changes in the total volume of member bank reserves—in the absence of some deliberate decision of monetary policy.

Moreover, in each case purchases of securities by monetary authorities—whether by foreign central banks or by the Federal Reserve—put funds back into domestic financial markets when the country's over-all balance of payments is in deficit. Or if there is a balance of payments surplus, official sales of securities—either by foreign central banks or by the Federal Reserve—take funds out of domestic financial markets to offset the funds that flow in as the country's international receipts exceed payments.

Thus, the general level of interest rates in the United States may not be raised or lowered by the monetary mechanics set in motion by a deficit or surplus in the U.S. balance of payments. But relative yields on different money market instruments are likely to be affected, especially in the short run. For example, the private withdrawals of funds from U.S. financial markets associated with a balance of payments deficit may put upward pressure on interest rates in some sectors of the market, but the accompanying official purchases will push Treasury bill yields down.

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<sup>5</sup> International reserve transactions handled through the Exchange Stabilization Fund, without affecting Federal Reserve asset accounts, cause transitory fluctuations in Treasury deposits at the Federal Reserve—just as when nonmarketable special securities are issued to foreign central banks or are redeemed.

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## **FOREIGN CURRENCY OPERATIONS**

The Federal Reserve has engaged in foreign currency operations to cushion the effects on international reserves of flows of payments due to temporary forces, to smooth out abrupt changes in foreign exchange rates, or to avoid disorderly conditions in foreign exchange markets. Such operations, which are conducted in consultation with the U.S. Treasury, are not intended to have any far-reaching influence on the underlying trends in international trade and capital transactions. At times, however, they may have useful short-run effects on the stability of foreign exchange markets—such as serving to check speculative flows of funds stimulated by rapidly changing exchange rates or by rapid gains or losses in a country's international reserves.

Federal Reserve foreign currency transactions are directed by the FOMC. A Special Manager at the New York Federal Reserve Bank acts as the Committee's agent in carrying out such transactions. Periodic policy directives are issued by the Committee to provide the authority and operating guidelines for the Special Manager.

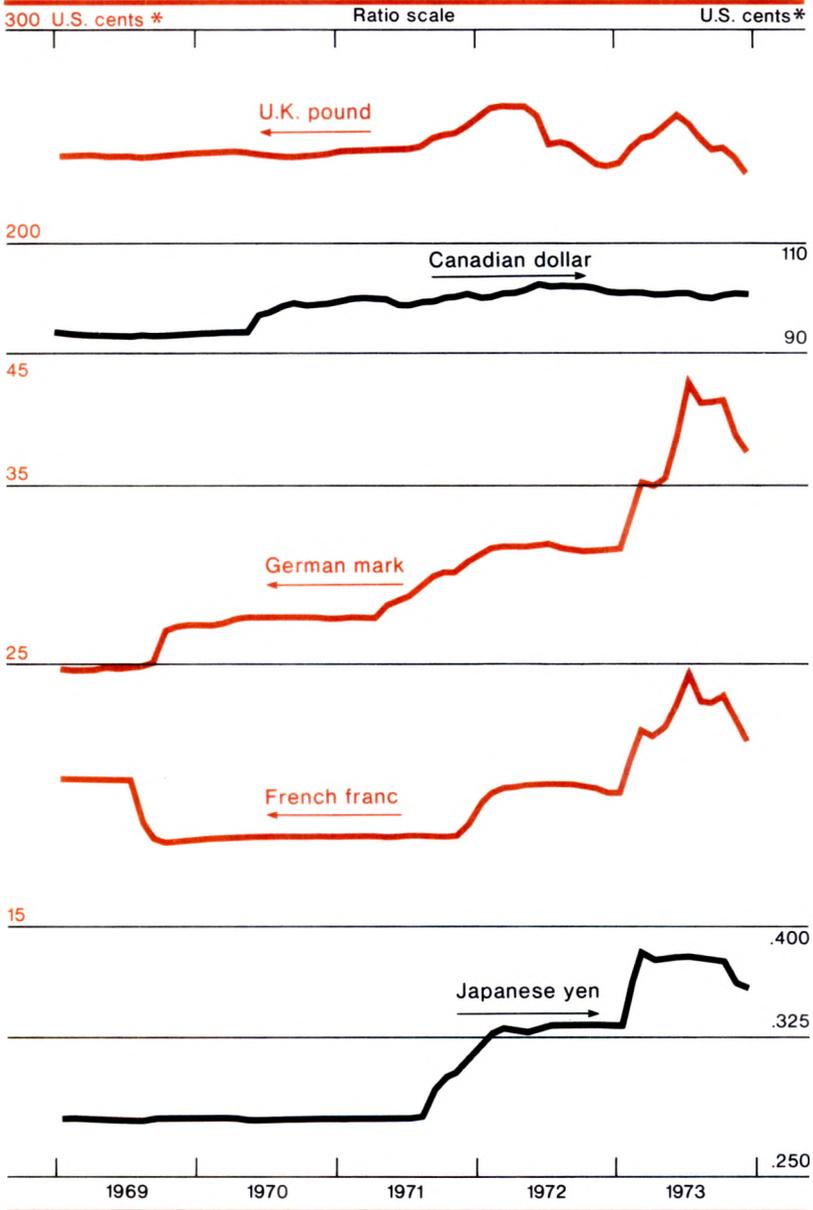
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### **"SWAP" NETWORK**

A major feature of the Federal Reserve's foreign exchange operations is the use made of a network of inter-central-bank reciprocal currency arrangements—commonly known as "swap" facilities. In exchange market terminology a "swap" is a pair of transactions between two parties entered into simultaneously: (1) a "spot" purchase or sale of one currency against another, and (2) a "forward" contract to resell or repurchase the currency after a specified period of time at a specified rate. This forward rate may be the same as the rate used in the spot transaction, or it may differ from the spot rate enough to yield the equivalent of interest to one of the parties. In effect, the holder of a currency balance covered by such a forward contract is protected against any risk of a depreciation of the other currency against his own; the holder has what is called an "exchange value guaranty."

The swap arrangements between foreign central banks and the Federal Reserve have generally provided that if one central bank has initiated a swap transaction with a second central bank, and if that

**CHART 14**  
**EXCHANGE RATES**



\* Per unit of foreign currency.

## *Purposes and Functions*

second central bank and its government are about to revalue its currency upward, the swap will be unwound before the revaluation occurs. Under these conditions the debtor central bank—that is, the bank that initiated the swap drawing—will not suffer a loss in obtaining the currency it needs to fulfill the swap contract. Under circumstances in which the dollar floats against other currencies, these provisions may not be applicable. For example, during 1973, when most major currencies were on a floating basis, the Federal Reserve had agreements with certain other central banks specifying that profits and losses from market intervention by the Federal Reserve would be shared equally by the Federal Reserve and the foreign central bank participating in the agreement.

As of mid-1974, the Federal Reserve's swap network included arrangements with 14 foreign central banks and the Bank for International Settlements; together these totaled almost \$20 billion. Drawings on a particular swap line may be initiated by either party.

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## *DRAWINGS BY FOREIGN CENTRAL BANKS*

Foreign central banks have drawn on the swap network to obtain dollars with which to intervene in exchange markets in order to keep the exchange rate for their currencies against the dollar from falling below a predetermined "floor" level. In such cases the Federal Reserve acquires and retains a balance in the foreign currency—covered, as explained above, by an exchange-value guaranty—until the swap is unwound. Any such foreign currency balance is counted as part of the international reserves of the United States.

The acquisition in this way of foreign currency reserves by the United States plays the same role in financing a U.S. payments surplus as would a decline in the dollar reserve holdings of foreign countries. However, the swap drawings may help the foreign country to resist speculative pressures in foreign exchange markets stimulated by the country's loss of reserves.

In relation to U.S. domestic financial markets, too, the ultimate impact of a U.S. acquisition of foreign currency reserves through a swap drawing by a foreign central bank is much the same as when a foreign country uses its dollar reserves. In either instance the payments deficit of the foreign country generally involves a sale of U.S.

Government securities—in the first case by the Federal Reserve (since a rise in Federal Reserve holdings of a foreign currency is normally accompanied by an offsetting Federal Reserve open market sale of securities) and in the second by the foreign central bank. Open market sales by the Federal Reserve in the case of swap drawings by foreign countries serve to prevent the increase in member bank reserves that would otherwise result from the foreign central banks' foreign exchange market sales of the dollars it had obtained through its swap drawing.

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*DRAWINGS BY THE FEDERAL RESERVE*

The Federal Reserve has utilized swap drawings in basically two types of situations.

Throughout most of the later 1960's, and particularly prior to the economic policy measures taken by the administration in August 1971, swap drawings of foreign currencies by the Federal Reserve enabled the System to give a temporary exchange-value guaranty to foreign central banks accumulating dollars, and thereby to delay or avoid additional foreign requests for gold sales by the U.S. Treasury. In such cases the Federal Reserve used the foreign currency immediately to buy the additional dollars accumulated by the foreign central bank. Thus, the foreign central bank's additional holdings of "uncovered" dollars were replaced by dollar assets that were "covered" or protected against exchange rate risk.

Ordinarily, these "covered" dollar assets took the form of special nonmarketable U.S. Treasury securities, while the rate protection was afforded by the Federal Reserve's obligation to return a specified amount of national currency to the foreign central bank at the termination of the swap. To fulfill this obligation, the Federal Reserve acquired the foreign currency through subsequent market purchases, or it arranged to buy such currency directly from the foreign central bank. Otherwise, the Federal Reserve had to buy the needed currency from the U.S. Treasury following either a gold sale or an IMF drawing through which the Treasury acquired the foreign currency.

Swap drawings of the type just described—to help delay or avoid reductions in U.S. reserve assets—had not been made since August 1971 up to the time of this writing. As of August 15, 1971, when

## *Purposes and Functions*

the U.S. Government suspended convertibility of the dollar into gold or other reserve assets, drawings outstanding amounted to about \$3 billion. By the spring of 1974, repayments amounting to roughly \$1.8 billion had been made on these swap drawings initiated prior to August 15, 1971.

In the second type of situation, the Federal Reserve has drawn on the swap lines to finance sales of foreign currencies in the New York market in order to maintain orderly trading conditions in the exchanges. In fact, this is the way swap drawings were utilized in the early days of the network. Such direct operations in support of the dollar were initiated again in July 1972 and were conducted prior to the devaluation of the dollar in February 1973. Between February 12, 1973, and early July 1973, there were no System operations. Following the announcement of the expansion of the swap network to \$18 billion on July 10, 1973, however, the Federal Reserve resumed intervention in the New York market.

When a swap drawing is made to finance market intervention, the Federal Reserve acquires foreign currency from the foreign central bank, which it sells in the New York market. The account of the foreign central bank with the Federal Reserve is simultaneously credited with an equivalent amount of dollars and that bank in turn uses the dollars to acquire a U.S. Treasury security. As in any other swap drawing, the two parties agree to reverse the transaction in 3 months; in order to do this, the System obtains the required foreign exchange either by subsequent market purchases or by some non-market transaction.

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## *REGULATION OF FOREIGN OPERATIONS OF U. S. BANKS*

In the field of regulation and supervision, the Board of Governors takes various kinds of actions that affect the international transactions and foreign operations of U.S. commercial banks and the U.S. activities of foreign banks. For example: (1) By establishing reserve requirements against borrowings by member banks from their foreign branches and lending by these branches to U.S. residents, in part for balance of payments reasons and in part to serve domestic monetary policy objectives, the Board affects the costs, and hence the volume,

of these transactions. (2) Through guidelines promulgated for balance of payments reasons, the Board for a number of years limited the volume of foreign lending and investing of U.S. banks and non-bank financial institutions. (3) The Board acts on applications by member banks to establish or acquire foreign branches and foreign affiliates, as well as to establish, under the Federal Reserve Act, corporations engaged in foreign banking and financing ("Edge Act corporations"); and once these entities have been established, the Board regulates and supervises their activities in various ways.

The following paragraphs deal with the first two kinds of actions. The third is described in Chapter 7.

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***SPECIAL RESERVE REQUIREMENTS AGAINST  
FOREIGN BORROWING BY MEMBER BANKS***

With the growth of the Euro-dollar and other Euro-currency markets in recent years, many of the largest banks in the United States have been able to supplement their borrowings of interest-sensitive funds from such domestic sources as the market for large negotiable CD's and the interbank loan market for Federal funds by obtaining from their branches abroad funds that these institutions in turn had borrowed in the Euro-currency markets. The reserve requirement against member banks' liabilities to their branches, introduced in 1969, adds to the net cost of loanable funds obtained in this way.

At the time the Board adopted this so-called "Euro-dollar reserve requirement," U.S. banks had been borrowing very large sums from the rest of the world through Euro-dollar channels. This development had had undesirable effects on some other countries' balances of payments and on their financial markets, as well as on conditions in U.S. credit markets. A requirement of 10 per cent against increases in such borrowing above specified reserve-free bases was imposed in the early fall of 1969. The requirement was also applied against borrowings directly from a foreign bank and against loans by a foreign branch of a U.S. bank to U.S. residents (unless the U.S. resident was a business firm using the proceeds of the borrowing abroad pursuant to the capital control program supervised by the Department of Commerce). Since 1969 the reserve requirement on Euro-dollar borrowings has been adjusted in various ways in light of balance of payments and monetary policy objectives.

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***VOLUNTARY FOREIGN CREDIT RESTRAINT (VFCR)***

A program for voluntary restraint of foreign lending—the second kind of Federal Reserve action mentioned above—was started in 1965 at the request of the President of the United States with the immediate aim of ameliorating the U.S. balance of payments deficit by holding down the net outflow of bank loans to foreign borrowers and of investments abroad by other financial institutions. Flows to Canada, after February 1968, long-term investments in developing countries by nonbank financial institutions, and after late 1971, credits to finance U.S. exports were exempt from coverage. The VFCR program was terminated on January 29, 1974, along with various other capital control programs administered by the U.S. Government. □

# Bank Regulatory and Supervisory Functions

## *Chapter Seven*

One of the purposes of the original Federal Reserve Act, stated in its preamble, was “to establish a more effective supervision of banking”; to this end the Federal Reserve System has been given important responsibilities for regulating the structure and operations of the U.S. banking system and related activities. These responsibilities include (1) the regulation and supervision of banks that are members of the Federal Reserve System—especially those that are State-chartered; (2) administering the Bank Holding Company Act and, in part, the Bank Merger Act; (3) regulating foreign activities of U.S. banks; and (4) administering “truth in lending” regulations covering consumer credit.

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### ***BANK REGULATION AND SUPERVISION***

Commercial banks play a vital role in the economic life of a community, and the maintenance of their economic health represents a major aim of public policy. The supervision and regulation of such banks by both Federal and State regulatory agencies is important to the maintenance of a sound banking system.

## *Purposes and Functions*

While the terms bank regulation and bank supervision are often used interchangeably, they are different. Essentially, bank regulation is the formulation and issuance by authorized agencies, under governing law, of specific rules or regulations for the conduct of banking. Bank supervision is concerned primarily with the safety and the soundness of individual banks, but it also involves the general and continuous oversight of the activities of this essential service industry to determine whether the industry's component business units are operating competitively and constructively in accordance with applicable regulation and statute.

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## *FEDERAL SUPERVISORY STRUCTURE*

Several governmental bodies share the responsibility for the wide range of functions associated with bank regulation and supervision. This supervisory structure has evolved partly as a legislative response to the complexity of the U.S. banking system—with its thousands of banks of varying size and numerous bank-chartering authorities. In part, however, it is the product of a succession of problems that U.S. banking has faced over the past century and of the wide variety of Federal and State banking laws and regulations designed to remedy these problems. As a result, three Federal bodies with related but somewhat different bank regulatory functions now complement the supervisory authorities of the 50 States.

This arrangement has inevitably led to some overlapping of responsibility. For example, the Comptroller of the Currency possesses by statute the power to grant charters to national banks. As their chartering authority, the Comptroller also has principal responsibility for the regulation and supervision of these banks. By statute, the Federal Reserve has a general regulatory and supervisory responsibility for the operations of all member banks—including national banks, since they are required by law to be members of the System. Statutes also assign to the Federal Reserve a special and more immediate regulatory and supervisory responsibility over State member banks. The third regulatory body, the Federal Deposit Insurance Corporation, has limited supervisory responsibility over member banks because, by statute, the deposits of national banks and of State-chartered member banks must be insured by that body. However, its principal supervisory responsi-

bility is over insured nonmember banks. In practice, the several State and the three Federal supervisory agencies have established arrangements that reduce substantially the effects of overlaps associated with joint regulatory responsibility.

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*SCOPE OF FEDERAL RESERVE SUPERVISORY  
FUNCTIONS*

The Federal Reserve has authority to conduct field examinations of all its member banks. Inasmuch as the Federal Reserve recognizes that the Comptroller of the Currency has primary responsibility for the supervision and examination of member banks that are nationally chartered, it carries out its responsibilities concerning those banks primarily by keeping informed of changes in their operating conditions, as disclosed in reports received from them and from the Comptroller. Therefore the Federal Reserve exercises a primary supervisory responsibility only for those member banks that are State-chartered.

This primary supervisory role of the Federal Reserve System derives from its statutory responsibility for admission of State-chartered banks to membership in the System. In addition to supervising such admissions, the Federal Reserve has responsibility for examining State member banks, for enforcing regulations and statutory provisions pertaining to State member banks (such as restrictions on asset holdings), and for requiring that unsatisfactory operating conditions of such banks be corrected.

In addition to these functions, the Federal Reserve possesses regulatory power over relevant technical matters pertaining to the operations of State member banks. These include the scope of their corporate functions, the authorization of any new branches they may seek to establish, and approval of such permissible changes as they may desire to make from time to time in their capital structures.

The Board of Governors delegates certain of its supervisory functions to the Federal Reserve Banks; these functions include the conduct of field examinations of State member banks and the authority to approve certain types of applications of State members—for example, to establish domestic branches. However, the Board of Gover-

## *Purposes and Functions*

nors directs and coordinates the supervisory work of the Reserve Banks, and it determines the broad supervisory policy of the Banks and reviews actions that the Banks take under delegated authority.

Since State member banks are chartered by States, the Federal Reserve shares its regulatory responsibility with the bank supervisory authorities of the States. In view of the overlapping jurisdictions, both the Federal Reserve and the various State supervisory authorities must approve bank applications for new branches, permissible changes in bank capitalization, and other relevant matters. However, they cooperate, where feasible, in joint or alternate examinations of banks.

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## *BANK HOLDING COMPANY RESPONSIBILITIES*

In 1956 Congress passed the Bank Holding Company Act and gave to the Board of Governors the responsibility for administering the Act. This Act, as amended in 1966 and 1970, was designed to achieve two basic objectives. The first was to control bank holding company expansion in order to avoid the creation of monopoly or restraint of trade in banking. The second was to allow bank holding companies to expand into nonbanking activities that are related to banking while maintaining a separation between banking and commerce. This second objective reflected a long accepted policy of the Congress that the "public interest" aspects of banking require a clear separation of banking from other unrelated activity.

Under the Act as amended, a bank holding company is defined as any company that: (1) directly or indirectly owns, controls, or has power to vote 25 per cent or more of the voting shares of a bank; (2) controls in any manner the election of a majority of the directors or trustees of a bank; or (3) exercises a controlling influence over the management or policies of a bank. Any company that qualifies as a bank holding company must register with the Federal Reserve System and file reports with the System. And a registered bank holding company must obtain the approval of the Board of

Governors before acquiring more than 5 per cent of the shares of either additional banks or permissible nonbanking companies. To limit interstate banking operations by holding companies, the Act provides that a holding company operating in one State may not acquire a bank in a second State unless the second State expressly authorizes such acquisition by statute.

For about a decade following the passage of the Bank Holding Company Act in 1956, the number of holding companies registered with the Federal Reserve remained relatively constant, as did the percentage of commercial bank deposits in the Nation controlled by holding companies (Table 7). Between 1965 and 1970, however, the number of registered holding companies more than doubled, and total deposits of their subsidiary banks almost tripled—raising the share of commercial bank deposits held by subsidiaries of holding companies from 8.3 to 16.2 per cent.

When Congress passed the Bank Holding Company Act in 1956, it exempted one-bank companies from regulation because almost all of these companies controlled small banks. During the late 1960's, however, many very large banks converted to the one-bank-holding-company form of organization. The conversion allowed these organizations to engage in nonbanking activities in which they could not engage as a bank. In order to preserve the traditional separation of banking and commerce, Congress amended the Bank Holding Company Act in December 1970 to embrace all one-bank holding com-

**TABLE 7**  
NUMBER AND DEPOSITS OF REGISTERED BANK  
HOLDING COMPANIES, SELECTED YEARS

Year-end	Number of holding companies	Deposits of subsidiary banks	
		Billions of dollars	Percentage of all commercial bank deposits
1957	50	15.1	7.5
1960	47	18.3	7.9
1965	53	27.6	8.3
1970	121	78.1	16.2
1971	1,567	297.0	55.1
1972	1,607	379.3	61.5
1973	1,677	446.6	65.5

## Purposes and Functions

panies. Primarily as a result of this new legislation, the number of registered bank holding companies increased from 121 at the end of 1970 to 1,677 at the end of 1973. Over this same period the proportion of commercial bank deposits held by such registered bank holding companies increased from 16.2 per cent to 65.5 per cent.

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## BANK ACQUISITIONS

Before acquiring more than 5 per cent of the shares of any bank, a bank holding company, as stated earlier, must obtain prior approval of the Board of Governors. In making its decision, the Board must consider the likely effects of the acquisition on banking competition, the convenience and needs for banking services of the community to be served, and the financial and managerial resources and future prospects of the holding company and the bank. The Board may not approve any acquisition that would result in a monopoly or that would substantially lessen competition, unless the anticompetitive effects are clearly outweighed by the acquisition's favorable impact on the convenience and banking needs of the community.

In assessing the competitive impact of a proposed acquisition of a bank by a holding company, the Board usually focuses on the relevant local banking markets, for it is in these markets that bank customers may have the fewest alternatives. Such markets are frequently approximated by counties or metropolitan areas. If a holding company already has one or more banks in the market in which it seeks to acquire another bank, the Board determines the extent to which existing competition would be adversely affected by the acquisition. This determination depends on the total number of banks in the market, but more importantly on the market shares already within the holding company's family of banks as well as on the share held by the bank to be acquired.

If the holding company is not already represented in the market of the bank to be acquired, the Board assesses the likely effects of the acquisition on future competition. In making this assessment, the Board judges first the possibility that a holding company might enter the market *de novo* (that is, with a newly chartered bank or branch) should the proposed acquisition be denied. Basically, this possibility depends on the holding company's characteristics—such as its overall size and its aggressiveness—and on the general attractiveness of

the particular market. Second, the Board determines on the basis of the present structure of the market the extent to which *de novo* entry into the market is needed. The Board is likely to give greatest weight to future competition in cases where (1) the market is highly concentrated; (2) the holding company proposes to acquire the largest or one of the largest banks in the market; (3) the market is attractive for *de novo* entry; and (4) the holding company is one of a few possible entrants.

In addition to antimonopoly and competitive considerations, the Board assesses the likely effect of a proposed acquisition on the convenience and banking needs of the public. Specifically, the Board is interested in whether the acquisition will result in the provision of new or better quality services, such as the introduction of trust services or longer banking hours, or will result in more favorable prices for bank services to customers, such as the offer of higher interest rates on savings deposits, more competitive loan rates, or reductions in service charges on checking accounts.

The Board also considers carefully how any proposed bank acquisition is likely to affect the financial and managerial resources of the bank to be acquired and of the holding company. Important factors bearing on its final decision are (1) the present capital position of the bank and of existing bank subsidiaries, and what plans the holding company has to augment the capital of the bank or of its existing subsidiaries, if deficient; (2) the quality of the bank's management and any plan the holding company may have for improving it; (3) how the holding company intends to finance the acquisition; and (4) the holding company's debt and its ability to service such debt.

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### **NONBANKING ACQUISITIONS**

In enacting the Bank Holding Company Act in 1956, Congress indicated its intent that holding companies, with few exceptions, be prevented from acquiring nonbanking companies. Such intent was rooted in the long-accepted public policy of keeping the control of banking separate from the control of unrelated nonbanking activities.

At the same time, however, Congress recognized that a complete prohibition of holding company acquisitions of nonbanking companies might not, in every case, be in the public interest. Over the years banking organizations had developed considerable expertise in cer-

## *Purposes and Functions*

tain bank-related areas, and allowing holding companies to enter these areas could both increase competition and improve the quality of the financial services they made available to the public. Consequently, Congress provided some exceptions to the general prohibition against bank holding companies engaging in nonbanking activities, and the 1970 amendments broadened the exceptions somewhat. The most important exception is that holding companies may undertake activities that are so closely related to banking or managing or controlling banks as to be a proper incident thereto.

As of mid-1974, the Board had ruled that 12 nonbanking financial activities may be engaged in by a bank holding company either directly or indirectly through an affiliate. With certain qualifications, these activities include:

1. Making or acquiring, for its own account or for the account of others, loans and other extensions of credit;
2. Operating as an industrial bank;
3. Servicing loans and other extensions of credit;
4. Performing trust activities;
5. Acting as an investment or financial adviser;
6. Leasing real and personal property;
7. Making equity and debt investments in corporations or projects designed primarily to promote community welfare;
8. Providing bookkeeping and data-processing services;
9. Acting as an insurance agent or broker;
10. Acting as an underwriter for credit life insurance and credit accident and health insurance directly related to extensions of credit by the bank holding company system;
11. Providing courier services; and
12. Providing management consulting advice to nonaffiliated banks.

As already indicated, before a bank holding company may acquire more than 5 per cent of the shares of a company engaging in a permissible nonbanking activity, it must obtain the approval of the Board of Governors. In determining whether to grant approval of the acquisition, the Board is required to consider competitive and other public interest factors.

In assessing the competitive impact, the Board determines in what product and geographic markets the company to be acquired oper-

## *Regulatory and Supervisory Functions*

ates, and to what extent, if any, the holding company's subsidiaries already compete in those markets. In addition, the Board considers whether the acquisition would have any adverse effect on future competition. It must also assess what effects, if any, the acquisition might have over the longer run on the solvency of the holding company's banks. Finally, the Board is required to consider whether the acquisition might produce efficiencies or greater convenience for the public, or whether it might lead to conflicts of interest or to an undue concentration of resources.

There are other exceptions to the general prohibition concerning ownership or control by holding companies of shares of nonbanking companies. Two of the more important ones permit holding companies to own or control shares of companies engaged in holding or operating properties used by any banking subsidiary of the holding company, and to own shares of the kinds and in the amounts that national banks may invest in directly.

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## ***BANK MERGER RESPONSIBILITIES***

During the 1950's there was a sharp rise in the number of bank mergers, several of which involved large banks located in the same metropolitan area. Fearing that a continuation of this merger trend could seriously impair competition in banking and could lead to an excessive concentration of financial power, Congress passed the Bank Merger Act of 1960.

This Act requires that all proposed bank mergers between insured banks receive prior approval from the Federal bank regulatory agency under whose jurisdiction the surviving bank will have legal status. That is, if the surviving bank is to be a national bank, the Comptroller of the Currency has jurisdiction; if a State-chartered member bank, the Board of Governors of the Federal Reserve System; and if a nonmember insured bank, the Federal Deposit Insurance Corporation. In order to maintain uniform standards among the three agencies, the Act also provides that the responsible authority request reports on competitive factors from the other two banking agencies, as well as from the Department of Justice.

## *Purposes and Functions*

The law, as amended, stipulates that in every case the responsible agency shall take into consideration not only the financial and managerial resources and future prospects of the existing and proposed institutions but also the convenience and banking needs of the community to be served.<sup>1</sup> The responsible agency shall not approve any merger that would result in a monopoly. Moreover, it shall not approve any merger that might substantially lessen competition or tend to create a monopoly unless the agency finds that the anticompetitive effects are clearly outweighed by the probable effect of the transaction in meeting the convenience and needs of the community.

In determining whether to approve a proposed merger where the surviving bank is to be a State-chartered member bank, the Board of Governors follows essentially the same procedures as were discussed earlier with regard to proposed acquisitions of banks by holding companies.

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## *RESPONSIBILITIES FOR MEMBER BANKS' INTERNATIONAL OPERATIONS*

The Board of Governors has three statutory responsibilities in connection with international operations of member banks. These relate to (1) issuing licenses for foreign branches and regulating the scope of their activities; (2) chartering and regulation of international banking subsidiaries, called Edge corporations (after Senator Edge, who introduced the legislation in 1919); and (3) authorizing overseas investments by banks, Edge corporations, and bank holding companies, and regulating the activities of such foreign subsidiaries as they may have.

Sections 25 and 25(a) of the Federal Reserve Act form the principal statutory framework for the international activities of member banks. Section 25 governs the operations of foreign branches of mem-

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<sup>1</sup> The criteria specified for granting prior approval to bank mergers in the Bank Merger Act are the same as those used in the Bank Holding Company Act for proposed acquisitions of banks by holding companies.

ber banks and provides for the direct investment by such banks in foreign banks (but not in other foreign financial corporations). Section 25(a) provides for the establishment of Edge corporations by U.S. banks. Under the 1970 amendments to the Bank Holding Company Act, the Board also has responsibility for regulating the foreign activities of bank holding companies.

In authorizing U.S. banks to have operations abroad, the Congress provided scope for the conduct of a broader range of activities than banks have usually been permitted in this country. Banks' foreign activities were made subject to supervision of the Board, and the Board was given wide discretionary power to regulate those activities with the aim of allowing U.S. banks to be fully competitive with institutions of the host country in financing U.S. trade and investment overseas. In addition, through Edge corporations, banks may conduct a deposit and loan business in an out-of-State market, provided the corporations' operations are strictly related to international transactions. The statute and the regulations relating to these matters are so written as to assure that the foreign operations of member banks do not undermine the objectives of domestic banking regulation.

Board policy has accommodated the rapid growth in recent years of the international business of U.S. banks that has reflected the expansion of overseas financing of U.S. companies and their foreign subsidiaries and the development of the Euro-currency and Euro-bond markets. By the end of 1972, 37 large U.S. banks were operating full-service branches overseas, and \$60 billion, or 30 per cent, of the total deposits of the 20 largest of these banks were held in foreign offices. During this period when foreign operations of U.S. banks have been growing so dramatically, there has been a similar growth in the activities of foreign banks in the United States. Operations of foreign banks in this country are subject to the various State regulations but not to Federal regulation, except to the extent required by the Bank Holding Company Act.

As these two types of banking activity have been increasing, international aspects of banking regulation have been receiving more attention by the Federal Reserve and also by the Congress and other groups. In 1973 the Board began a review of such regulation, under a Steering Committee made up of three members of the Board and the presidents of three Reserve Banks.

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## **RESPONSIBILITIES FOR TRUTH IN CONSUMER LENDING**

In 1968 Congress passed the Truth in Lending Act (Title I of the Consumer Credit Protection Act) and gave the Board of Governors responsibility for formulating and issuing a regulation (Regulation Z) to carry out the purposes of the Act. This legislation was based on the premise that uniform disclosure of credit costs would enable the consumer to compare more readily various credit terms and would avoid the uninformed use of credit. Amendments to the Act in 1970 prohibited the unsolicited distribution of credit cards and limited the liability for unauthorized use of lost or stolen cards to \$50.

The coverage of Truth in Lending is far-reaching, because almost everyone uses consumer credit in one form or another. Many retail stores offer charge accounts with extended repayment privilege subject to special financing charges; credit cards may be used for department store purchases, travel, or entertainment; cars and furniture may be bought on an instalment purchase plan; most homes are purchased with a mortgage; and medical bills, vacations, and even tax payments are often financed through personal loans repayable in monthly instalments. Although the precise number of creditors subject to Truth in Lending is unknown, an estimated one million persons or organizations are extenders of consumer credit.

A 20-member advisory committee, consisting of representatives of creditors, consumers, and the public, assists the Board in carrying out its regulatory functions in the consumer credit area. The Board prepares an *Annual Report to Congress on Truth in Lending*, which contains information on the Board's administrative role under Truth in Lending, an assessment of the extent to which compliance is being achieved, and suggestions for changes in the Act.

While the Board of Governors has sole responsibility for preparing regulations implementing the Truth in Lending Act, enforcement of the regulations is spread among nine Federal agencies, with the Federal Trade Commission having the bulk of the enforcement task. The Board is responsible for enforcing Truth in Lending only with respect to State member banks. □

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