

Monetary Policy in a Changing Financial Environment: The 1974 Annual Report of the Manager of the System Open Market Account

Editor's Note: The following is adapted from a report submitted to the Federal Open Market Committee by Alan R. Holmes, Executive Vice President of the Federal Reserve Bank of New York and Manager of the System Open Market Account. Sheila Tschinkel, Manager, Securities Department, was primarily responsible for preparation of the report. John S. Hill, Chief, Securities Analysis Division, contributed to its development, and his staff, under Anne Rowane's direction, prepared the data used herein.

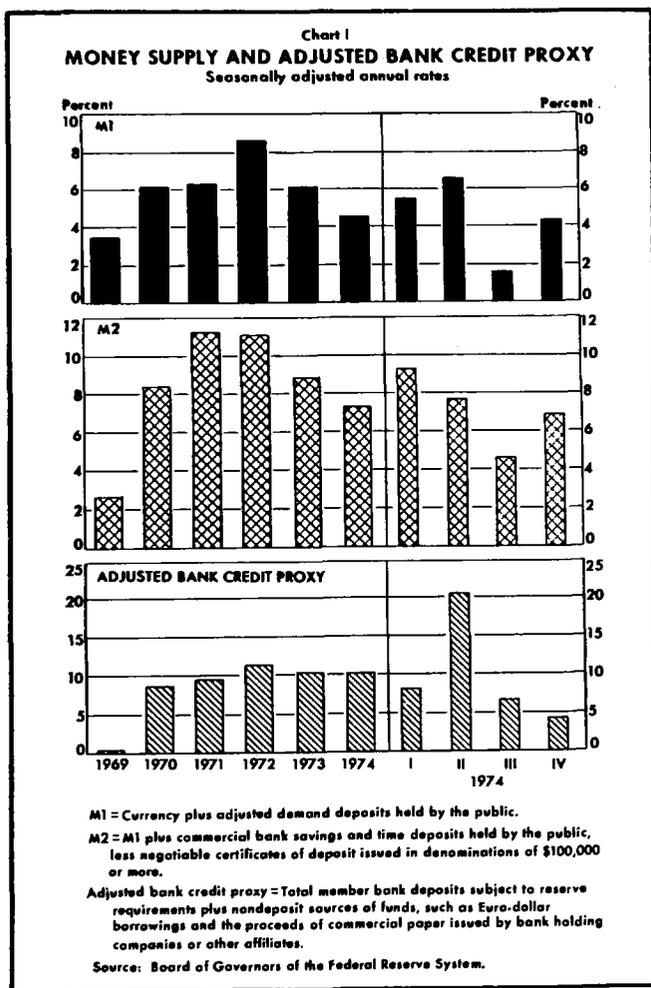
Federal Reserve policy in 1974 acted to temper the conflicting forces of inflation and weakness in real economic activity. The Federal Open Market Committee (FOMC) sought to ensure moderate expansion of the monetary aggregates to bridge the lengthy and difficult transition to sustainable economic growth. Policy became restrictive early in the year as the Committee responded to evidence that inflationary pressures were again gaining momentum and monetary aggregates were growing too rapidly. Although interest rates climbed sharply, financial institutions continued meeting excessive demands for money and credit and their dependence on short-term market borrowing increased. A secular decline in liquidity in all sectors of the economy became even more pronounced. Problems of the Franklin National Bank and difficulties encountered by several borrowers in refinancing debt surfaced in the spring and deepened concerns about cumulating liquidity strains on the financial system. Expectations that debt could become an increasing drain on the health of the economy as inflation persisted intensified a cutback in spending and investment plans.

Monetary growth decelerated over the summer, and the financial markets began to recover as demand pressures abated. Financial institutions started to exercise restraint on their own, and restoring liquidity, rather than expanding borrowing, became the focus of attention. As inflationary pressures moderated and signs of generalized economic weakness appeared, the Committee in the closing months of the year acted to stimulate a resump-

tion of monetary expansion and thereby to provide for the rebuilding of liquidity.

Monetary expansion remained quite rapid over much of the first half of 1974, but later became persistently sluggish. The narrowly defined money stock (M_1)—defined as private demand deposits plus currency in circulation—increased by 4½ percent over the year, well below the 9 percent and 6 percent rates experienced in 1972 and 1973, respectively (see Chart I).¹ Record-high interest rates on market instruments cut into time and savings deposit flows over a good part of the year. M_2 — M_1 plus commercial bank time and savings deposits other than large-denomination certificates of deposit (CDs)—grew at a 7½ percent rate, down from 9 percent the year before. Growth in the credit proxy—total deposits plus non-deposit liabilities at member banks—at just over 10 percent was a shade slower than in recent years due to a very pronounced deceleration as the year drew to a close. Bank credit—total loans and investments at all commercial banks—showed a similar pattern and actually contracted in the final quarter (see Chart II).

¹ Growth rates for all measures in the introduction use data that incorporate revisions made in January 1975. The data used in describing operations during the year are those available at the time.

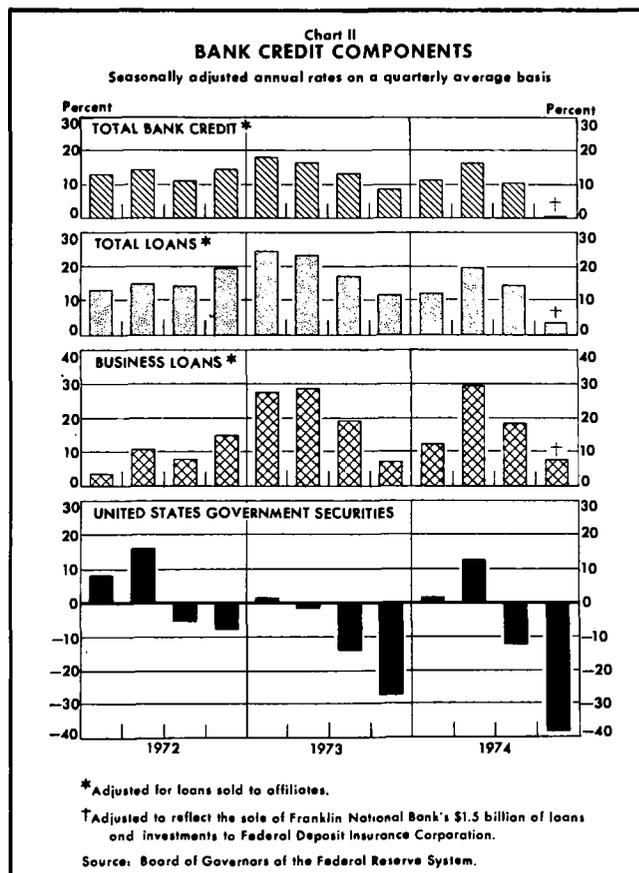


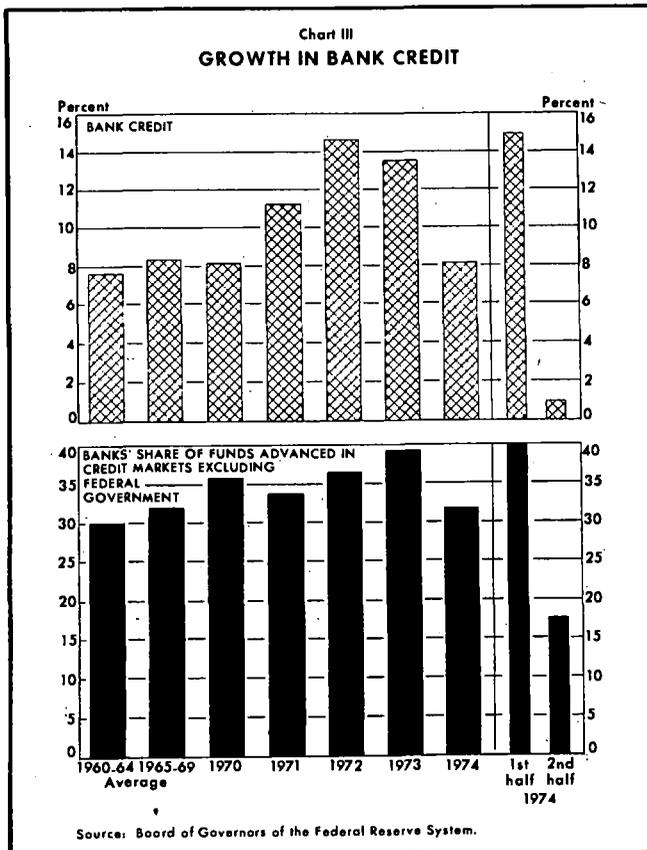
The monetary aggregates remained a central focus of policy formulation and implementation over 1974 as they have for the past five years. The Committee continued to frame its longer run objectives for the aggregates with reference to changing assessments of the economic and financial situation.

In 1974, policy makers were confronted with the need to allow for important changes in bank and corporate behavior. The financial system had been adapting to a prolonged period of inflation and to the intense competition for funds that it generated. But these adjustments reached a point in 1974 where they strained the capability of the financial mechanism to function. The transmission of monetary policy in a changing financial environment provides the setting for understanding monetary developments over the year.

THE FINANCIAL ENVIRONMENT SINCE 1970

The Federal Reserve has continually grappled with the problems of achieving its policy objectives in a dynamic economic setting. In recent years, the System has sought to implement its goals for the economy by targeting the longer run growth of the monetary aggregates, particularly M₁ but also including broader measures. This emphasis has generated considerable discussion on how policy instruments should be used to achieve intermediate money and credit growth objectives and on the relationships between these monetary aggregates and the economic variables which policy makers seek ultimately to influence. The System impacts on its aggregate objectives and ultimate goals with a lag through the financial markets, whose changing structure reflects the response of institutions to economic developments and to the System's policies. An understanding of the role of the aggregates in this interactive process is crucial to the setting of policy instruments and objectives.





The FOMC pursues its aggregative objectives primarily through its instructions to the Manager of the System Open Market Account. The Manager translates these into weekly and daily decisions affecting bank reserves that reflect the FOMC's concern with the unfolding behavior of the aggregates. Important institutional and structural changes over the past five years have affected importantly the transmission mechanism set in motion by the System's operations.

The credit market environment has become dominated by bank emphasis on liability management. The suspension of Regulation Q constraints on large CDs, in two stages between 1970 and 1973, gave banks the ability to meet growing credit demands. Banks were able to enhance their competitive position by extending loan commitments and lines of credit, thereby accommodating enlarged business demands during upswings in business activity (see Charts II and III). The ability of business to obtain such lines at banks provided a foundation for the additional growth of short-term borrowing in the commercial

paper market. As the cost of issuing CDs varied and business borrowing became more responsive to interest rate differentials, the prime rate of banks began to respond faster to changing market rate patterns. Some banks adopted a practice of relating their lending rate to short-term market rates and, in general, loan terms adjusted more quickly. The enhanced ability of both banks and business to meet financing needs, albeit at potentially increasing costs, made them willing to permit their liquidity to deteriorate. As a result, the relationship between the size of the cash balances and the level of expenditures was altered. This was reflected in variations in the velocity of money and in the divergence between the growth of credit and the money stock over the past several years.

Inflation and its attendant pressures on short-term interest rates also impacted on credit flows. As the upward price trend became imbedded in investor expectations, investors showed some reluctance to commit funds to long-term securities. The increased dependence of borrowers on short-term markets contributed to the illiquidity of the economy. Sectors primarily dependent on long-term financing—most notably housing and construction—experienced particular difficulty. This problem was accentuated as individuals were attracted to high rates of return on open market instruments, at several stages, and funds were diverted from banks and thrift institutions (see Chart IV). But individuals became less liquid when their savings were put into market instruments, since such commitments are often difficult to reverse in comparison with drawing down a deposit. This showed up in the slow growth of M_2 and M_3 — M_2 plus deposits at savings and loan associations and mutual savings banks—for certain extended periods over the past five years.

The imposition of wage and price controls in different forms also affected the financial atmosphere. Interest rates dropped sharply immediately after the announcement of control measures in August 1971. In ensuing months, demands for credit and money abated, given the reduced need to make expenditures in anticipation of rising prices. As shortages of goods emerged, however, credit demands rebounded and then accelerated. The slow rise of the prime rate over much of 1973, partly in response to efforts by the Committee on Interest and Dividends to temper increases in administered interest rates, brought with it a rapid escalation in business borrowing at banks. Banks responded by scrambling to raise funds in the CD market and rates on these instruments climbed. For a time, the rise in CDs outpaced the expansion of other financial instruments and the composition of credit in the economy was skewed toward banks. The System undertook to temper bank credit expansion in 1973 by placing marginal

reserve requirements on CDs for the first time.

The expansion of foreign credit markets and their increased internationalization also changed the course of credit flows in the domestic economy. Large multinational firms were able to shift their cash balances and financing demands from market to market in response to interest rate differentials and to changing expectations about exchange rates. The rising standard of living in foreign countries placed greater demands on many domestic sectors, such as agriculture.

The growth of foreign banking institutions in the United States and the expansion of domestic banks abroad extended channels of speculation between money markets. Episodes of intense speculation against various currencies were often financed by borrowed funds and contributed to accelerated credit growth. The lifting of the Voluntary Foreign Credit Restraint Program in this country encouraged a further expansion of international dollar and foreign currency lending. The Euro-dollar market, which is not subject to the direct control of any central bank,

expanded and became more integrated with the domestic financial markets. In general, national monetary authorities may have had difficulty in adjusting their domestic policies adequately for the rapid internationalization of the money and capital markets and the attendant growth of international credit throughout much of the period.

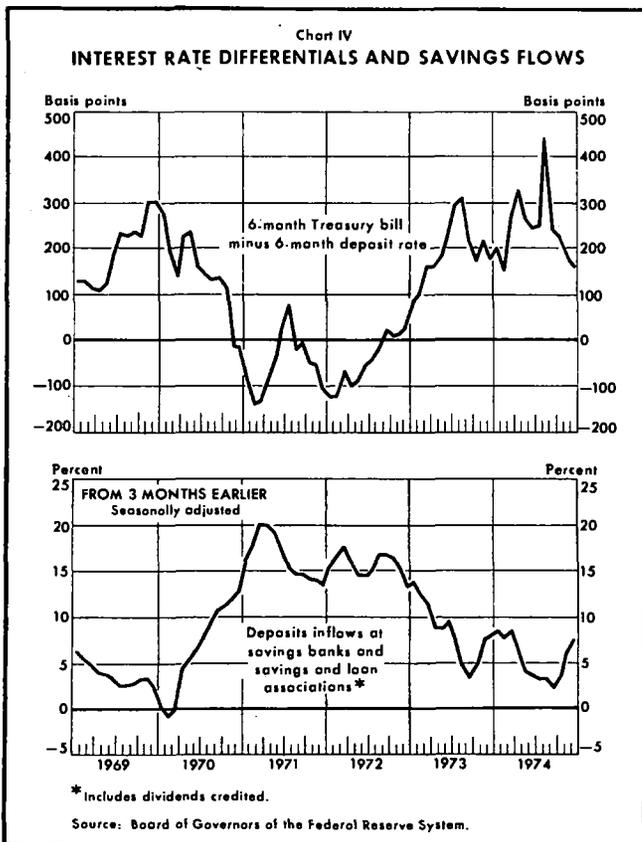
SYSTEM POLICY FORMULATION SINCE 1970

Monetary policy exerts its dynamic influence on the financial environment and the economy through its impact on the expectations of households, businesses, and financial institutions. Their behavior interacts with the System's monetary and regulatory stance to determine the course of the monetary aggregates and the economy. The System's emphasis on aggregate targeting in recent years has itself been one of the institutional changes affecting the generation of expectations among economic units.

The System has specified objectives for the monetary and credit measures as a means of quantifying the leverage it wishes to exert on the economy. The experience accumulated from targeting the aggregates has led the Committee to focus on longer run growth targets for the aggregates on the grounds that temporary aberrations in monetary expansion were likely to have negligible effect on the course of economic activity. The Committee also refined the ways it gives instructions to the Manager. Evidence illustrated the long and variable lag between System action and the behavior of the aggregates. Several econometric models showed that changes in short-term interest rates exerted most of their influence on money demand only after a number of months. Estimates showed that the size of the impacts and the length of the lag were variable with respect to changes in nonborrowed reserves and the Federal funds rate. Shifts in the underlying financial structure could also affect the behavior of the money supply. There was growing understanding over time of the difficulty of forecasting accurately the impact of a particular operational strategy on M_1 and the other aggregates.

The Committee since 1970 has tried alternative means of formulating its monthly instructions to the Manager.² A basic part of its instructions described how the Man-

² Alan R. Holmes, Open Market Operations in 1973, 1972, and 1971: *Federal Reserve Bulletin* (May 1974), pages 338-50; (June 1973), pages 405-16; and (April 1972), pages 340-62, respectively. For the year 1970, Paul Meek and Rudolf Thunberg, "Monetary Aggregates and Federal Reserve Open Market Operations", *Monthly Review* (Federal Reserve Bank of New York, April 1971), pages 80-89.



ager should respond to incoming data on the aggregates. Soon after its move to aggregate targeting, the Committee adopted weekly and monthly tracking paths to be used as reference points against which strength or weakness in the measures could be gauged. These paths were designed to be consistent with the FOMC's longer run aggregate objectives, although the Manager often had to allow for unanticipated developments that could affect the short-run behavior of the various measures. In early 1972, the FOMC began to specify acceptable ranges for reserves against private deposits (RPD) as a means of fostering the desired growth in the aggregates. The ranges described growth in this variable over the month of the meeting and the ensuing month. The Committee found, however, that the actual relationship between RPD and M_1 often failed to develop as expected, at least in the time period from one meeting to the next. As a result, the Committee and the Manager gradually came to place more emphasis on underlying deposit behavior as a guide for his response. The RPD experiment encouraged the FOMC to adopt two-month tolerance ranges for M_1 and M_2 toward the end of 1972, and these were still being used two years later.

In its operational instructions, the Committee has tended to place the most emphasis on M_1 , although by the end of 1974 this emphasis was coming under question. At the same time, the FOMC has guided the extent and the timing of the Manager's response to incoming data to allow for financial market developments and other policy considerations. The Committee at its meetings has often widened the tolerance ranges for the aggregates by raising or lowering one of the bounds so that the Manager's responses would remain consistent with underlying policy intent. This approach served to avoid generating market reactions to day-to-day policy implementation that would be out of step with the longer run direction of policy.

The Manager reacted to new information on the aggregates by altering supplies of nonborrowed reserves in a way that produced an orderly rise or fall in the Federal funds rate. Over the period between FOMC meetings, permissible variation in the Federal funds rate was constrained by the FOMC—although the allowable range could be, and often was, amended between meetings. The direction and extent of the change in the funds rate were governed by the observed behavior of the aggregates relative to their desired behavior and by conditions in the financial markets. The ability of the Manager to vary the nature of reserve-supplying operations marked an extension of the specifications in the proviso clause form of the directive used from 1966 through 1969, which provided for a response to developments in various aggregates in the periods between meetings. Over the years since 1970, the

Committee has often made room for greater variation in the funds rate over a month to promote the achievement of its objectives for the aggregates. Growing awareness of the System's emphasis on the aggregates and of the Manager's response to incoming information began to have an important impact on expectations in the economy. Financial market participants began to follow the behavior of the money supply in forming their anticipations of interest rate movements. They looked to the Federal funds rate for confirmation of their expectations about System action.

THE FINANCIAL SYSTEM AND MONETARY POLICY IN 1974—OPEN MARKET OPERATIONS AND THE MONETARY AND CREDIT AGGREGATES

Events in 1974 put the ability of financial institutions to adapt to changing circumstances to a severe test. The already overextended financial system was confronted with inventory financing and other credit demands in an atmosphere of international scarcities of materials and sharply higher prices. Monetary policy sought to deal with points of pressure without relaxing its efforts to restrain the underlying forces of inflation that were causes of financial strain. Later, as recessionary tendencies began to cumulate, the System became willing to support the rebuilding of liquidity needed for healthy economic growth. To highlight significant developments in 1974, the following discussion of policy and the financial system separates the year into three chronological sections.

JANUARY-MARCH. The outlook for the economy was murky when the year began. The oil embargo was producing fuel shortages and working to reduce real economic activity. Several sectors of the economy, including housing and durable goods, appeared weak. Scarcities of needed materials were adding to inflation and curtailing output in other industries. Responding to this outlook, the Committee included a slightly higher rate of M_1 growth in its longer run objectives for the aggregates and decided that the Manager should seek a slight easing of money market conditions unless growth in the aggregates appeared stronger than expected. The same objective for M_1 in the first half of the year was retained in February, and the FOMC at both meetings specified two-month tolerance intervals for the aggregates that were associated with progressively lower ranges for the Federal funds rate.

While the Manager had made little change in his approach to reserve management in the opening weeks of the year, he moved promptly to attain some easing of money market conditions shortly after the January FOMC meeting. These moves were intensified when it initially seemed

that M_1 and RPD would fall below their December-February ranges of tolerance. By early February, Federal funds were trading at $8\frac{3}{4}$ percent to 9 percent and the effective rate had declined by 75 basis points or so from the start of the year (see Chart V).

It first appeared likely that this trend could continue after the February meeting, but M_1 moved above its two-month range and estimates of M_2 and RPD rose to near the upper bounds of their respective ranges. This ordinarily would have prompted the Manager to permit the funds rate to rise to the $9\frac{1}{2}$ percent top of its range of variation. However, with the publication of successive weekly M_1 bulges in February, the financial markets had become very apprehensive about the likelihood of a reversal of the System's interest rate posture. The FOMC

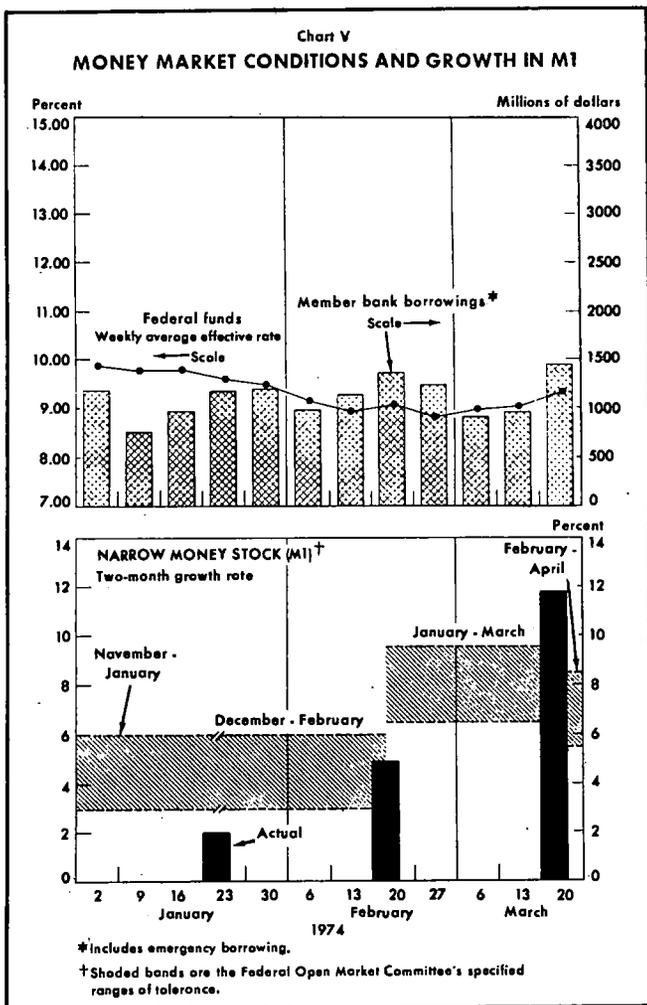
agreed on March 1 that reserve operations should be conducted in a manner consistent with maintenance of the funds rate around 9 percent. But ten days later, when additional data showed that rapid monetary growth was persisting, the full range for the funds rate was restored though the Manager was instructed to proceed very cautiously in restraining reserve growth. By the March FOMC meeting, the funds rate had risen to about 9.35 percent and was approaching the level that prevailed just before the start of the year.

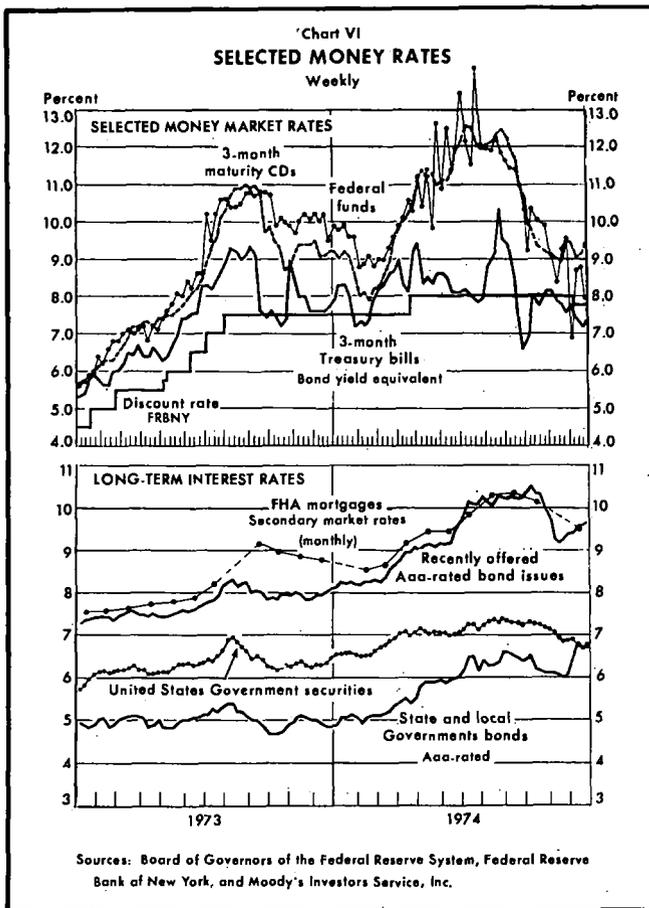
In the financial markets, expectations that the oil shortage would significantly weaken the economy were quite pronounced when 1974 began. While the rapid 8.7 percent money supply growth of the final quarter of 1973 had been somewhat worrisome, short-term credit demands were more moderate than earlier in that year. Banks started to rebuild holdings of securities in expectation of a lessening of monetary restraint. The prime rate was adjusted downward late in January, and it fell by $\frac{3}{4}$ percentage point to $8\frac{3}{4}$ percent over the next four weeks. But it lagged declines in open market rates, and borrowing demands at banks thus decelerated.

Business and financial market participants were generally anticipating interest rate declines, and there was some move to refund short-term liabilities by borrowing in the capital markets. A downtrend in rates became established by the end of January as the Trading Desk's moves to supply nonborrowed reserves more readily became evident and as a nearly 3 percent decline in M_1 for that month was observed in the published data. Short-term interest rates fell appreciably—averaging 70 to 80 basis points lower in February in comparison with the month before (see Chart VI). Securities dealers began to take on substantial inventories, and the issues offered in the Treasury's February refunding were bid for aggressively. Long-term rates declined only slightly, however, as inflation worries and increases in supply dampened sentiment in the bond markets. New highly rated utility issues were offered to return around $8\frac{1}{8}$ percent, 10 basis points lower than in January, and yields on older issues were little changed.

As the winter progressed, concern about prices began to have stronger impact. It became apparent that the slowdown in the economy was related mainly to oil and that otherwise demand was strong. The expected returns on holding inventories of many goods were revised higher and demands for short-term credit expanded. Borrowing in the commercial paper market began to grow rapidly.

Some began to reassess sentiment about the course of monetary policy and interest rates. The revision in expectations grew more widespread when extremely rapid mone-





followed the March FOMC meeting. The growth of M_1 remained quite rapid, expanding at a 6.7 percent rate in the second quarter. The System's efforts to retard money growth amidst strengthening expectations about the course of economic activity and prices brought interest rates to unprecedented levels. The financial markets experienced considerable duress and liquidity considerations became paramount. While the Committee continued seeking to restrict rapid monetary expansion, it acted to reaffirm the Federal Reserve's role in maintaining the viability of the financial system.

The strong credit and monetary expansion that emerged in the first quarter of the year underscored the impact of the very rapid and entrenched rate of inflation. Looking ahead, it appeared that the lifting of the oil embargo in mid-March might give support to greater personal consumption expenditures and could have an expansive effect on economic activity by the summer. Government spending was likely to continue at a substantial rate, and business investment demands remained strong. In consequence, at the March FOMC meeting, the staff noted that retention of the longer run objectives for the aggregates was likely to entail an extension of the upward thrust in interest rates. At the same time, estimates of the demand for money over the months ahead were subject to more

tary growth emerged and was confirmed during February. As the Manager's response to the aggregates became clear in the Federal funds rate, other interest rates began to rise at a rapid pace. Banks began to revise estimates of the likely course of credit demands, and securities dealers started to cut inventories substantially. By the time of the March Committee meeting, the three-month Treasury bill rate was near the 8 percent level of the previous November, after having fallen below 7 percent five weeks earlier. Long-term rates were pressing against the record highs recorded in August 1973, with new Aaa-rated utility bonds offered at close to 8½ percent. Yields on high-coupon United States Government bonds were rising to and above the earlier records. A seven-year note auctioned in the February refunding at 6.95 percent was yielding close to 7½ percent.

MARCH-SEPTEMBER. The dynamics of change in the financial mechanism became very evident in the months that

SELECTED INTEREST RATES
In percent

Rates	1973	1974				
	Dec. 28	Feb. 13	July 3	Aug. 27	Sept. 30	Dec. 31
Short-term						
Federal funds—weekly average effective rate	9.52	8.93	13.55	11.84	11.12	7.35
Three-month Treasury bill: Average bond yield equivalent	7.65	7.31	8.07	10.31	6.58	7.34
Discount rate—Federal Reserve Bank of New York	7.50	7.50	8.00	8.00	8.00	7.75
Three-month certificates of deposit	9.22	8.08	12.15	12.45	10.69	9.25
Long-term						
United States Government securities	6.47	6.50	7.12	7.30	7.27	6.78
Recently offered Aaa-rated utility bonds	8.10	8.19	9.79	10.26	10.27	9.67
State and local government bonds: "Moody's" Aaa bonds	4.85	5.05	6.20	6.35	6.40	6.70
Federal Housing Administration mortgages: Secondary market rates	8.78	8.54	9.85	10.30	10.38	9.51

error than usual. In addition to the uncertainty about the economic outlook, there were the problems of assessing how borrowers, lenders, and savers would react to the recent and prospective rates of inflation. These related uncertainties remained through the summer, though the ongoing rise in interest rates was expected to exert restraint on monetary growth as time went on.

At its March meeting, the FOMC voted to moderate growth in the aggregates over the months ahead. Expansion in M_1 had been substantial in February, and the impetus to rapid growth was evidently continuing. To allow for greater progress toward the achievement of a moderate growth objective, the FOMC reduced the lower ends of the two-month tolerance ranges for the various measures relative to those suggested by the staff. This action meant that the Manager would not respond to lower growth rates which might be temporary. The same approach was taken at subsequent meetings through July, and each time the FOMC raised the range for the Federal funds rate relative to the one specified at the previous meeting. At times in the interval between meetings, the Committee agreed to let the funds rate increase further than initially contemplated.

By August, monetary growth had moderated substantially and had fallen below the desired expansion. The outlook for the rest of the year suggested a resumption of faster expansion but not at a pace that was likely to call forth further increases in interest rates. The FOMC at that time was able to reduce slightly the upper end of the range of variation in the funds rate—for the first time in six months—while retaining its earlier objective for M_1 and the other measures.

The Manager began soon after the March meeting to restrict the availability of nonborrowed reserves, given evidence that overly rapid M_1 growth was continuing (see Chart VII). Such actions were extended through early May, but they became increasingly conditioned by financial market considerations. Widespread evidence of strong inflationary pressures in the economy made financial market participants especially sensitive to the ensuing rise in the Federal funds rate. Banks began to bid more aggressively for reserves, and the funds rate rose to around 10½ percent by mid-April. Thereafter, the Manager found it increasingly difficult to temper the rise in the funds rate, as banks sought to limit borrowing at the discount window. The Desk found that supplies of securities were often insufficient for open market operations as dealers had sharply reduced their inventories. The Committee agreed to permit the funds rate to move higher than contemplated at its April meeting rather than conduct reserve-supplying operations on a scale that would risk

market misinterpretation of the System's policy intent. While the Desk had been anticipating a Federal funds rate of around 11 percent as the next meeting approached, it rose considerably more and reached a record weekly average of 11.46 percent in mid-May.

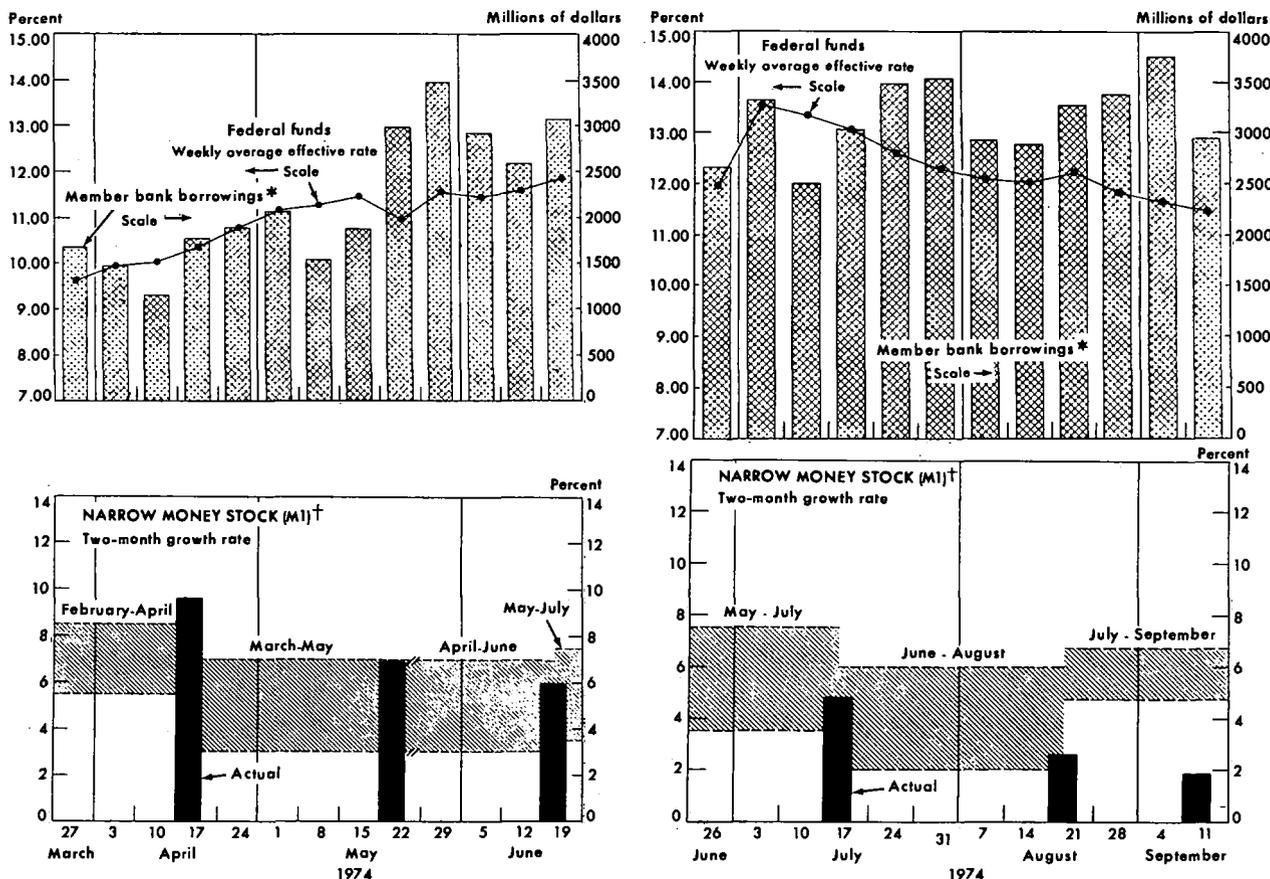
Business borrowing at banks became extraordinarily large, as economic activity turned out considerably stronger than had been expected earlier. By the spring, the credit proxy was expanding at an unprecedented rate, the prime rate was up to 11¼ percent, and banks were bidding intensely to obtain needed funds in the money markets—raising over \$10 billion in April and May in the CD market. Most banks continued to confine activity to the shorter maturity area, often driving rates on CDs and Euro-dollars well above the Federal funds rate and making rollovers a persistent problem. The drive to issue CDs extended nationally, and smaller banks began to rely increasingly on the money market for funds.

These pressures soon extended past the banking system and yields in the credit markets began to rise dramatically. Commercial paper rates jumped by 250 basis points between mid-March and early May, with the rate on 90-day dealer-placed paper reaching 11 percent. Bankers' acceptance rates rose similarly amid extremely heavy activity. Treasury bill rates rose by relatively less than rates on other money market instruments, but both the three- and six-month issues were auctioned at rates in excess of 9 percent by the second week in May. Individual investors channeled more funds into bills and soon bought substantial amounts of Treasury coupon and agency issues. In the May refunding, small investors purchased \$1.5 billion of the new issues, over one third of the amount being offered.

The nature of market pressures was significantly altered, as news of the difficulties being faced by the Franklin National Bank became widespread by early May.³ The substantial growth that had taken place in CDs and the attendant reduction in bank liquidity were disturbing. Investors began to show preference for instruments of only the largest and most well-known banks. Concern over the financial stability of some open market bor-

³ On May 12, the Federal Reserve indicated that it would advance funds to Franklin National if that bank experienced unusual liquidity pressures. As its deposits and other liabilities fell, Franklin's use of the discount window grew substantially and reached about \$1.75 billion by early October, when it was taken over by the European-American Bank. At that time, the Federal Deposit Insurance Corporation assumed Franklin's liabilities to the Federal Reserve.

Chart VII
MONEY MARKET CONDITIONS AND GROWTH IN M1



*Includes emergency borrowing.
† Shaded bands are the Federal Open Market Committee's specified ranges of tolerance.

rowers emerged, and it became more difficult to re-finance maturing liabilities. Real estate investment trusts and utility companies encountered particular problems. The yield differentials between instruments with different credit ratings widened appreciably in both the short- and long-term debt markets. In the Government securities market, the growing preference of investors for less risky obligations led to yield declines. Some began to think that these pressures would soon lead banks to restrain asset growth, so that the rapid rate of monetary expansion would moderate and lead to a modification of System policy.

The Manager moved cautiously in restricting reserve

supplies over the rest of May and well into June. The aggregates generally stayed on the high side of their ranges, and the funds rate was around 11¼ percent by mid-June. Conditions in the securities markets had stabilized to some degree.

But, in late June and early July, liquidity pressures erupted again and there was a significant deterioration in domestic and international financial market conditions. The failure of a bank in Germany renewed apprehension in the markets. Pronounced shifts in borrowing and lending patterns occurred, and many institutions reduced the amounts that they would lend to individual borrowers.

Banks acted to reduce borrowing at the discount win-

dow, apparently to preserve this privilege for later use and managed their reserve positions cautiously, preferring to risk excess reserves rather than deficiencies. In these circumstances, the average Federal funds rate jumped by 158 basis points to over 13½ percent in one week in early July, well above the 12 percent level then intended. While the Manager pumped in nonborrowed reserves almost continually and at a pace that would have produced an acceptable rate under normal circumstances, the rate showed little tendency to edge lower. It became increasingly clear that more massive reserve-supplying operations would be needed to push the funds rate back down. The Committee on July 5 instructed the Manager to continue efforts to bring the rate down to within its 11¼ to 12¼ percent range of tolerance but not to the extent of flooding the market with reserves. But these pressures persisted and the funds rate remained well above 13 percent. One week later, the FOMC agreed that operations should be undertaken promptly to reduce the funds rate to 13 percent and to permit it to decline further should market factors work in that direction. After steadily and regularly pumping in reserves, the pressures finally gave way around the time of the FOMC meeting in mid-July.

After the exceptionally taut money market conditions had faded, the Manager directed operations at maintaining a Federal funds rate of around 12¼ percent until the next meeting of the Committee in August. Growth in the aggregates moderated significantly in the summer months so that by late August most measures had fallen below their tolerance ranges. The Manager thus sought some easing in bank reserve conditions, and the Federal funds rate declined to 11¾ percent—near its level three months earlier.

The intense demands for liquidity that emerged in the banking system in early July had a profound impact on the credit markets. Concern over the safety of assets was heightened, and investors became exceptionally reluctant to lend on all but the most secure instruments. Commercial paper rates rose to 12¼ percent in early July, and dealers began encouraging borrowers to use bank lines of credit. The prime rate soon rose to an unprecedented 12 percent. The largest banks were able to accommodate more loan demands as they found CD and other short-term funds readily available, but smaller banks encountered difficulty in refinancing maturing liabilities. Major money center banks paid as much as 12½ percent on short-term CD maturities and raised \$2.8 billion of new funds in July. In the bankers' acceptance market, the suspension of operations by the largest dealer added to the difficulties of lesser known banks in selling their paper. Rates rose sharply and a tiered market developed, al-

though the situation was relieved by increased System buying of acceptances under the enlarged leeway adopted by the FOMC on July 18.

Money market pressures ebbed as the summer progressed, though the markets were thin and volatile. But by early September, CD and commercial paper rates were moving back toward earlier highs, reflecting concern over the size of forthcoming maturities. To encourage banks to rebuild liquidity by extending the maturity structure of their liabilities, the Board of Governors of the Federal Reserve System amended Regulation D on September 5 to remove the 3 percent marginal reserve requirement on time deposits and other obligations maturing in four months or longer.

In the debt markets, prices fell substantially during the summer amid growing apprehension about their ability to withstand cumulating liquidity pressures. Stability re-emerged, but the concern about liquidity pressures resurfaced periodically and remained a critical factor in the markets. Uncertainty about the level of yields needed to attract buyers prompted underwriters to sell issues on a negotiated basis and also encouraged certain issuers, mainly banks, to sell notes whose returns were tied to Treasury bill rates. Postponements and reductions of corporate and tax-exempt issues had little impact as they only added to a mounting calendar of future offerings. By early September it took 10 percent to market a new long-term Aaa-rated telephone offering, compared with the 8.80 percent yield offered by the parent concern in May. In addition, the volume of short-term notes reaching the market increased.

The safety and liquidity of Government securities had initially generated some additional yield declines in late June and July. This tendency was later reversed, as supply pressures mounted and as demand for such issues by oil-exporting countries turned out less strong than many had anticipated. Treasury bill rates set at the August 26 weekly auction rose to records of 9.91 percent and 9.93 percent for the three- and six-month issues, after falling below 8 percent on several occasions earlier in the summer. Demand from small investors absorbed a high proportion of substantial new offerings of Government and Federal agency issues. In the August refunding, the Treasury placed unprecedented 9 percent coupon rates on two note offerings and small investors purchased \$2.3 billion of the \$4.3 billion sold. The 33-month and six-year issues were awarded at rates of 8.59 percent and 8.75 percent, respectively. An additional \$400 million of 8½ percent bonds was issued at 8.63 percent, compared with the 8.23 percent yield set when the bonds were first issued in the May refunding. Rates on new Federal agency issues

reached new highs, as borrowing by the housing-related agencies increased. While the markets remained under pressure, the deceleration in the growth of the money supply over the summer and into September provided hope that interest rates could soon move lower.

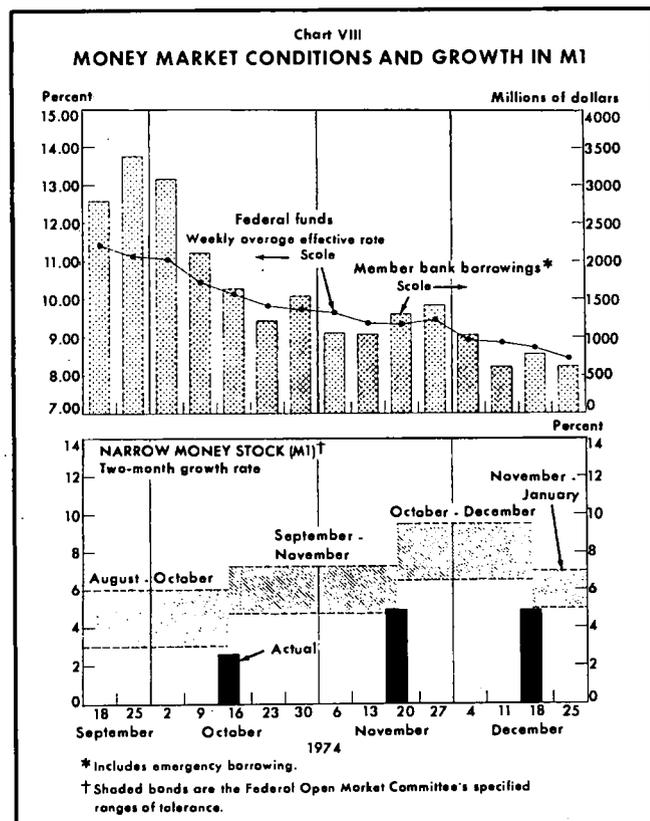
SEPTEMBER-DECEMBER. The substantial and widespread erosion of liquidity produced a strong response which emerged toward the close of the year. Monetary expansion remained slow, and the Committee's efforts to achieve more rapid growth met with limited success. Even though the System encouraged substantial interest rate declines, both through open market operations and regulatory changes, banks sought to exercise restraint of their own by limiting loan commitments and asset growth. Concern over the adequacy of bank capital and the financial prospects of borrowers increased. These considerations were also evident in the debt markets amid a sharp contraction of real economic activity toward the end of the year.

The outlook for the economy at the September FOMC meeting suggested that the weakness in real economic activity would persist in the fourth quarter of the year and in the first half of 1975. The unemployment rate had begun to edge up, and it was expected that a contraction in housing would continue while demands in other sectors would moderate. Although inflation was still rapid, the behavior of prices appeared to be showing signs of improvement. In view of this situation, the Committee decided to seek growth in the monetary aggregates at rates slightly higher than those contemplated earlier and raised its longer run objectives for M_1 and other measures. A staff analysis suggested that money market conditions should ease in the period ahead if M_1 were to reach the expansion desired over the longer run.

In the months that followed, estimates of the decline in interest rates that would be needed to spur a resumption of monetary growth became successively larger as the economic outlook worsened. M_1 had grown at less than a 2 percent rate over the third quarter and it remained below its desired expansion, increasing at 4.3 percent in the final three months of the year. Declines in market interest rates fostered better inflows of time and savings deposits, and M_2 rose appreciably but at a slower pace than in the first nine months of the year. Banks permitted maturing CDs to run off, and growth in the credit proxy slowed further. The Committee became steadily more willing to see money market conditions ease, and each month it lowered significantly the range of variation allowed for the Federal funds rate. On two occasions it made provision for further declines in the period between

meetings. The Board also restructured and reduced reserve requirements in mid-November. In early December, it approved a reduction in Federal Reserve Bank discount rates from 8 percent to 7¾ percent, the first cut in three years. Staff assessments presented at the December meeting suggested a significantly larger contraction in economic activity than had been anticipated earlier, and the Committee raised its longer run objectives for M_1 and other measures.

When the monetary aggregates moved near or below the ranges of tolerance after the September FOMC meeting, the Manager acted to attain some further easing in money market conditions (see Chart VIII). The funds rate had declined by nearly ¾ percentage point to 11 percent by early October and then fell quickly to just under 10¼ percent over the next two weeks, the new lower limit agreed upon by the Committee on October 4. While the aggregates moved toward the upper end of their ranges after the October meeting, the FOMC reemphasized its concern with the underlying sources of weakness in the



economy and agreed, on November 1, that the Manager take actions that would lower the funds rate from $9\frac{3}{4}$ percent to $9\frac{1}{2}$ percent. The strength in M_1 turned out to be temporary, and the Manager became steadily more accommodative in providing nonborrowed reserves over the rest of the year. By the final week, he was seeking availability consistent with a funds rate of around 8 percent or below, nearly 3 percentage points less than its level three months earlier and the lowest in over a year and a half.

The Manager often had difficulty in encouraging the Federal funds rate to decline as the year drew to a close. Substantial additions to nonborrowed reserves facilitated bank efforts to reduce discount window borrowing. Market churning around tax and oil payments dates often generated enlarged demands for excess reserves, and bank actions to improve the appearance of their balance sheets on statement dates were more evident than in other recent years. The resultant money market pressures were particularly intense in the final week of 1974 when Federal funds traded near 9 percent until the rate fell to less than 4 percent on the final day of the year—when the banking system emerged with excess reserves averaging over \$600 million for the statement week.

Short-term interest rates declined quite sharply in the final months of the year, but the downtrend was often interrupted. While the slow growth of the monetary aggregates, the Manager's operations, and System regulatory changes generated favorable expectations about the interest rate outlook, the perpetual refinancing of maturing debt and the more selective preferences of investors worked against this trend. Banks became more concerned about liquidity and sought to restrain asset growth. Reductions in the prime rate lagged those on open market rates, and bank investment portfolios continued to contract. Periods of heavy CD maturities were often preceded by drives to refinance these obligations well ahead of time. CD rates fell by over 250 basis points to as low as $8\frac{1}{2}$ percent on thirty-day maturities at one point. But they rose over a good part of December, and major banks paid as much as $9\frac{1}{2}$ percent to bolster deposit totals over the year-end. Some effort to extend the maturity of these obligations became apparent in the early weeks of 1975.

While large money center banks found themselves making loans to industries with special problems, other banks actively discouraged borrowing. The resultant shift of some refunding to the commercial paper market worked to slow the decline in these rates. Although dealer-placed 90- to 119-day paper had fallen to $9\frac{1}{8}$ percent by mid-December, down from $11\frac{3}{4}$ percent in early September, most of this drop occurred shortly after the end of the

third quarter. While the Federal funds rate in December averaged 8.53 percent, almost $1\frac{1}{2}$ percentage points below its level a year earlier, rates on private money market instruments were only 15 to 30 basis points lower.

The long-term debt markets faced a growing volume of financing as businesses began to refund short-term borrowing. The continued hesitancy of investors to commit funds and concern about the impact of a slowing economy on the financial prospects of borrowers added to upward pressure on yields. While yields declined in October and part of November, they moved back up amid substantial additions to current and prospective supplies. Dealers were reluctant to underwrite new offerings in view of their substantial losses earlier in the year. New Aaa-rated utility issues were sold at around $9\frac{1}{2}$ percent in late December, about $\frac{5}{8}$ percentage point above their low in the quarter and 150 basis points above yields one year earlier. Investors continued to scrutinize the particular aspects of different borrowers, and utility firms had to offer considerably more than industrial borrowers in order to sell issues. The yield spreads between firms with different ratings also remained quite wide. The tax-exempt market came under particular stress as the year drew to a close, due partly to the failure of bank demand to materialize as expected in this stage of the cycle. The long-term financial problems faced by many municipalities in an inflationary environment were galvanized by the publicity given to difficulties in New York City. The Bond Buyer's index on tax-exempt yields rose to a record 7.15 percent in mid-December, 2 percentage points above its level near the start of the year.

Government securities continued to fare relatively better, though the prospects of large Federal budget deficits and attendant Treasury borrowing tempered market sentiment. Dealers added substantially to inventories in the November Treasury refunding, but the distribution phase proceeded slowly. Demand from institutional investors and banks remained modest, while noncompetitive tenders fell off in view of the reduction in yields since the summer. The Treasury sold new three- and seven-year coupon issues at yields of about $7\frac{7}{8}$ percent, some 65 basis points below earlier highs. At the year-end, yields on intermediate coupon securities were around $7\frac{1}{4}$ to $7\frac{3}{8}$ percent, still about $\frac{1}{2}$ percentage point above levels at the end of 1973. Additional $8\frac{1}{2}$ percent bonds were issued in November at 8.21 percent, close to their yield in the previous May and 75 basis points above the yield on a new twenty-year issue the previous February. Treasury bill rates generally moved in concert with short-term rates over the final months of 1974 and thus closed well below levels one year earlier. Most of the declines oc-

curred soon after the System's moves toward a more accommodative interest rate posture became evident. After falling from around 9 percent to near 6½ percent from September to early October, the three-month bill closed the year at 7.29 percent, compared with 7.71 percent one year earlier.

OBSERVATIONS

Experience over the past several years has demonstrated the complexity and variability of the relationships between interest rates, the growth in the different monetary aggregates, and the path of real economic activity. The use of aggregate targeting has probably contributed to the clarity of monetary policy discussions, but policy making itself has not proved easier. Evidence of structural changes in the financial system has reduced the policy maker's confidence in the stability of the linkage between operational instructions and desired long-run economic goals. This raises questions about how the intermediate monetary variables may best be used in a dynamic setting.

For most of the past five years, banks were considerably more aggressive than earlier in supplying credit and deposits. After the *de facto* lifting of Regulation Q ceilings on large CDs in 1970, banks became more confident of their ability to meet loan commitments. Their development of escalator clauses on loan contracts and a floating prime rate increased the profit incentive for loan expansion during upswings in economic activity. Overly rapid growth in money and credit was often sustained for some time after interest rates began to increase. Rates had to rise to a much greater extent, and possibly for a longer period of time than previously, in order to induce the asset adjustments by banks that were needed to stem bank credit and money supply expansion. The use of marginal reserve requirements added to the cost of funds, but the size of the changes did not seem large enough to affect significantly bank policies. Only as credit risks increased with the high level of interest rates and the slowing economy did banks move toward more conservative loan policies.

This reassessment of the value of liquidity—or the risk of illiquidity—worked to retard a resumption of monetary growth in the latter part of 1974. Lagging reductions in the prime rate encouraged borrowers to repay their loans and thereby cut compensating balances. But banks showed little inclination to undertake the significant expansion of investments which previously occurred in this stage of the cycle. Although nonborrowed reserves increased and short-term interest rates fell substantially after the sum-

mer, the size of the banking system changed little, and this worked to restrict the growth of deposits.

System-induced changes in interest rates also exert influence on money growth by affecting the public's demand for liquid assets. But the extent of this response appears variable, perhaps because the demand for a particular form of money is also affected by changes in the financial system. The substantial growth in alternative short-term investments may alter the public's desired holdings of deposits. Shifts into the newer forms of market assets during the periods of high interest rates may lead to enlarged demands for M_1 as a compensation for the ongoing loss of liquidity. Thus, some periods of rapid M_1 expansion have been accompanied by slower rates of increase in M_2 . At other stages, the rebuilding of consumer time and savings balances as market interest rates fall may be accompanied by a shift out of demand deposits, which limits M_1 growth relative to that of M_2 . The availability of new types of time deposits on occasion may also impact on the public's desire for the different categories of deposits at given interest rates and income levels.

While emerging forces can often cause inexplicable shifts in the behavior of a particular aggregate, a group of measures will generally track the economy reasonably well. Financial change has evidently affected and will continue to impact on the supplies of, and demands for, monetary assets. In these circumstances, it is doubtful that any single measure qualifies as the "best" intermediate monetary target because the linkages between System operations and the aggregates—and between these measures and the economy—are not likely to remain unchanged or predictable over time.

The Committee's adoption of aggregate targeting in 1970 established a means of making open market operations more sensitive to emerging trends in the economy. While the Committee has placed most emphasis on M_1 , it often recognized that this measure was not an unfailing guide. It did not adopt unvarying "rules" for setting M_1 objectives or for achieving them, despite many suggestions to this effect. The FOMC allowed some flexibility to respond to the possibility that the behavior of other measures in the period between meetings could provide grounds for a reconsideration of a response to M_1 . From the Manager's standpoint, the experience in recent years suggests that it would be useful to extend this flexibility. It should be possible to weigh more evenly several of the aggregates in the specifications given to the Manager. By capturing a broader range of information, the Committee's instructions might then become even more attuned to the underlying economic conditions that it seeks to affect.