

ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

Monetary Policy and Inflation: 1993 in Perspective

by Gregory A. Bauer and John B. Carlson

In 1993, monetary policy was most unusual because of what did *not* happen: The federal funds rate objective remained unchanged. The fed funds rate is the interest rate banks pay when they borrow deposits at the Federal Reserve from other banks, usually overnight. It is closely watched in financial markets because its level can be immediately and purposefully affected by open market operations of the Federal Reserve's New York Trading Desk. Market analysts understand that "permanent" changes in this rate generally occur only after deliberative action by the Federal Open Market Committee (FOMC), the policymaking arm of the Federal Reserve System.

Federal Reserve policy actions can lead to substantial changes in the level of the fed funds rate. For example, the strong steps initiated in late 1979 to slow inflation were associated with a rise in the fed funds rate from around 11 percent to about 17 percent in April 1980, and ultimately to around 20 percent in early 1981 (see figure 1). Although the rate trended downward over the balance of the 1980s, it also rose and fell by as much as 2 percentage points within a given year. From fall 1992 until the close of 1993, however, the fed funds rate traded on a daily average basis within one-eighth percentage point of 3 percent for the most part.

Some economists worry that this pattern of stability might make it more difficult to increase the fed funds rate in the face of a need to head off inflationary pressures. Such concerns are based on the

experience of the mid- to late 1970s, when monetary policy appeared to react too little, too late and inflation accelerated to new highs. Compounding this sentiment is the recent deemphasis on monetary targeting. To some analysts, the monetary targeting procedure has traditionally served not only to identify the FOMC's intentions regarding the thrust of policy, but also to provide discipline useful for anchoring the price level.

Although the fed funds rate remained in a trading range around 3 percent from early September 1992 through the end of last year, the period was characterized by substantial swings in the outlook for economic activity and inflation. This *Economic Commentary* reviews these events in the context of the longer-term objective of continuing progress toward price stability. We discuss how the Fed's credible commitment to pursuing this goal may have contributed to the net decline in long-term interest rates, even without any hard evidence of deliberative action in the face of financial-market inflation concerns.

■ Humphrey-Hawkins: February 19, 1993

The Full Employment and Balanced Growth Act of 1978—also known as the Humphrey-Hawkins Act—requires that the Federal Reserve's Board of Governors transmit to Congress semi-annually (once before February 20 and once before July 20) both an analysis of current economic conditions and its policy objectives for the calendar year.

Although the Federal Reserve did not change its objective for the federal funds rate over the course of the past year, long-term interest rates declined from their 1992 levels. The events of 1993 also point to confidence in the financial markets that the central bank will respond appropriately to any significant acceleration in the price level. This article provides an overview of these issues in the context of the Federal Reserve's continued emphasis on price stability, which may have contributed to the outcome for interest rates in 1993.

The first report must specify growth ranges for the monetary and credit aggregates and also presents the range and the central tendency of FOMC member projections for inflation and output in the current year.¹

In the July report, the FOMC reassesses its objectives and projections, as well as specifies preliminary targets for the next calendar year. Although nothing in the act requires the Board to fulfill its plans for money and credit, it is required to explain the conditions under which such plans could not or should not be achieved. The Board is also obligated to supply an explanation for changes in the targets.

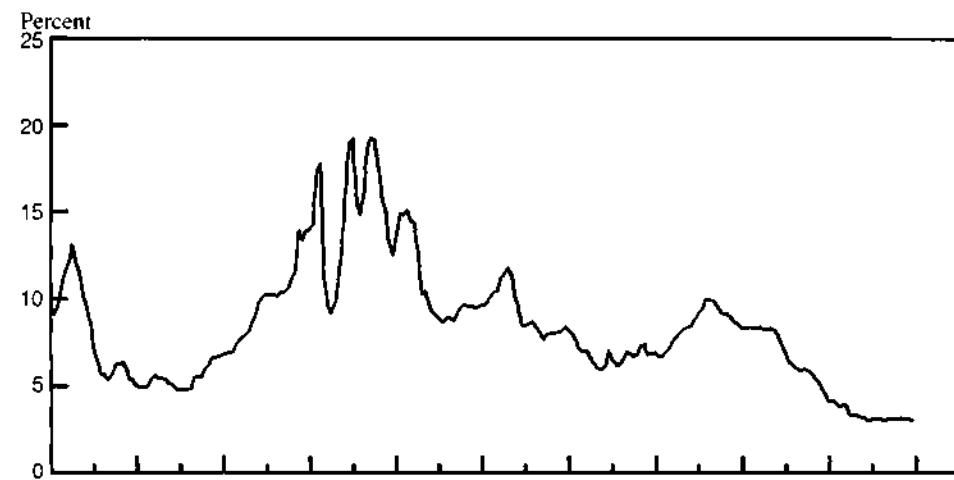
In the February 1993 report to Congress, the Fed set its ranges for M2 and M3 growth at 2 to 6 percent and $\frac{1}{2}$ to $4\frac{1}{2}$ percent, respectively. Both were one-half percentage point lower than the corresponding ranges in the previous year.²

The 1993 report emphasized that the reduction of the monetary ranges was to be viewed neither as a change in the stance of policy nor as a hindrance to continued economic expansion. Rather, Chairman Alan Greenspan described the change as wholly technical in nature. The relatively dependable relationship between M2 growth, interest rates, and economic activity had come into question in the past few years as low bank interest rates had caused credit flows to be rechanneled away from depositories to alternative sources.

This breakdown is illustrated in figure 2, which shows the divergence between M2 velocity—the ratio of M2 to nominal GDP—and its opportunity cost—the difference between market interest rates and the average interest rate paid on M2 balances. Prior to 1990, M2 velocity moved directly with changes in opportunity cost; since then, however, the two series have generally moved apart.

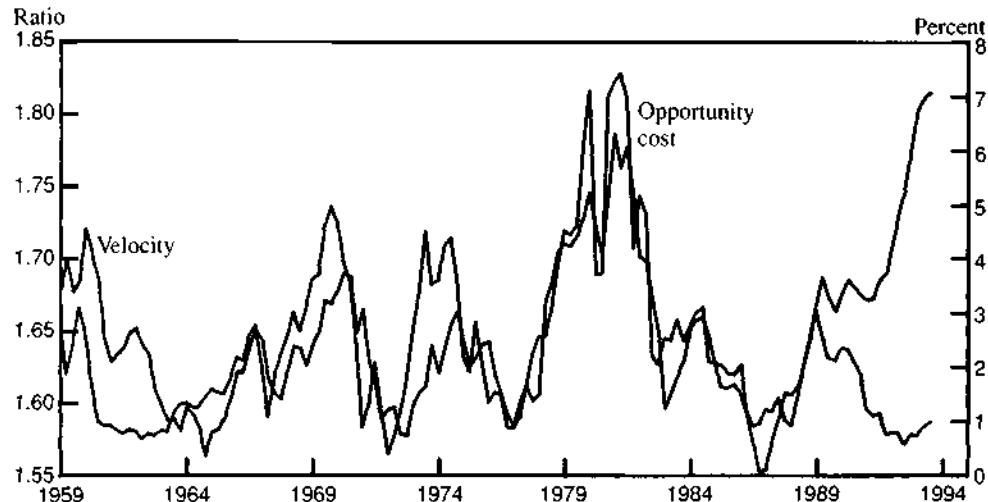
Thus, despite the weakness in M2, the FOMC projected last winter that the economy would grow at a healthy pace in 1993. The central tendency for GDP

FIGURE 1 FEDERAL FUNDS RATE



SOURCE: Board of Governors of the Federal Reserve System.

FIGURE 2 M2 VELOCITY AND OPPORTUNITY COST^a



a. M2 velocity is the ratio of GDP to M2. M2 opportunity cost is defined as the spread between the market rate and the average interest paid on M2 balances. The market rate is defined here as the three-month Treasury bill rate.

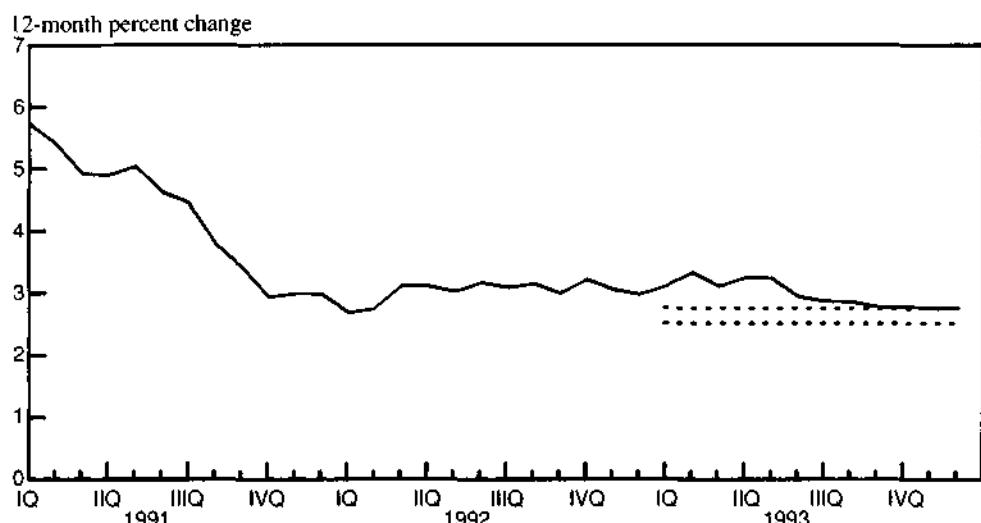
SOURCE: Board of Governors of the Federal Reserve System.

was expected to be in the range of 3 to $3\frac{1}{4}$ percent, building on the momentum generated in the fourth quarter of 1992. Coupled with a moderate acceleration in output growth, the FOMC's projections for inflation were consistent with a continued downward trend. The central tendency for the annual change in the Consumer Price Index (CPI) ranged between $2\frac{1}{2}$ and $2\frac{3}{4}$ percent for 1993, significantly lower than the 3.1 percent rate in 1992. The report emphasized that the FOMC still viewed the containment of inflation as an important element in its long-run strategy for stable economic growth.

■ Spring Jitters

By early in the second quarter, however, data on business activity and prices suggested a less sanguine outlook. The revised estimate of real GDP rose less than 1 percent in the first three months of 1993. In addition, weaker-than-expected employment growth in March raised concerns about the durability of the expansion. At the same time, inflation was accelerating: The CPI increased at an annual rate of more than 5 percent in April, elevating the year-to-date CPI inflation rate to around $4\frac{1}{4}$ percent (see figure 3). Even the core measure of inflation, which is designed to minimize transitory noise, seemed to confirm an

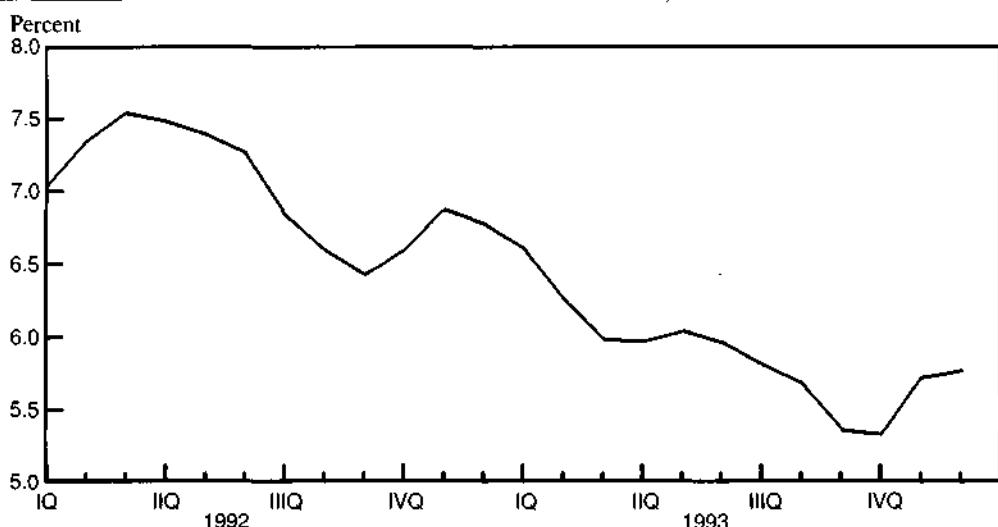
FIGURE 3 CPI INFLATION, 1991-93^a



a. Dotted lines represent 1993 central tendency projection.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

FIGURE 4 10-YEAR U.S. TREASURY RATE, CONSTANT MATURITY



SOURCE: Board of Governors of the Federal Reserve System.

impending rise in the price level with a sharp uptick in April.

Although the continued deceleration in M2 — which had been evident since 1988 — would have indicated a further decline in the inflation trend based on historic relationships, markets appeared to discount the significance of sluggish M2 growth. Indeed, some observers were more worried about the rapid growth of the narrower monetary aggregates. M1 and the monetary base were increasing at double-digit rates—a signal more consistent with rising inflation.

Inflation concerns appeared to be corroborated by a suspension in the de-

cline of long-term interest rates (see figure 4). On a monthly average basis, the 10-year bond leveled in April and rose in May (when the April inflation number was released) despite the signs of economic weakness and M2 growth well below its target range (see figure 5). Short-term rates also started to climb during the beginning of the second quarter (see figure 6).

In light of these inflation concerns, the FOMC adopted a tightening bias in the form of an asymmetric directive at its May 18 meeting. Such a directive allows the Chairman certain flexibilities during the period between Committee meetings to move in the direction of a tightening stance.

The FOMC's posture, which market commentators later described as preparation for a "preemptive strike against inflation," seemed to be sufficient to prevent inflationary expectations from gaining any upward momentum. The 10-year bond rate resumed its downward trajectory in June after reports of the tightening bias surfaced in *The Wall Street Journal* and *The New York Times*. News on inflation began to improve, although little progress was evident in the relatively stubborn expectations revealed by survey data.

■ Taking Stock at Midyear

By the time the July report was issued, the accumulation of new information had substantially altered the 1993 outlook for inflation and the economy. The Committee members modified their projections accordingly; the central tendency of real GDP growth for the year was $2\frac{1}{4}$ to $2\frac{3}{4}$ percent, almost a full percentage point lower.

The range of projections for the CPI, on the other hand, was revised upward, with a central tendency of 3 to $3\frac{1}{4}$ percent for the year, up one-half percentage point from the February report. The overall news on inflation was termed "disappointing," although the May and June numbers had helped to ease fears somewhat. The July testimony stressed the role of expectations in the battle against inflation.

Higher inflation expectations can compound an upward inflation trend, much like a self-fulfilling prophecy, when people negotiate future prices and wages based on their predictions of a steeper price level. In contrast, price stability is achieved when the changes in the general price level are small enough to have an insignificant effect on economic and financial planning.³

Faced with below-target growth in the aggregates, the Federal Reserve lowered the 1993 ranges at midyear, again as a wholly technical move and not as an indication of a policy change. The M2 growth range was reduced a full percentage point to 1 to 5 percent, while the M3 range was lowered by one-half percent. The FOMC also

chose a tentative 1994 range for M2 of 1 to 5 percent.

Given the uncertainties surrounding inflation expectations, the Committee reassessed the importance of below-target growth, stating that "at least for the time being, M2 has been downgraded as a reliable indicator of financial conditions in the economy, and no single variable has yet been identified to take its place."⁴ The long-run relationship between M2 and prices had clearly broken down and would be set aside unless a more consistent pattern reemerged. The markets, apparently understanding the M2 difficulties, were unmoved by the diminished role for the aggregate.

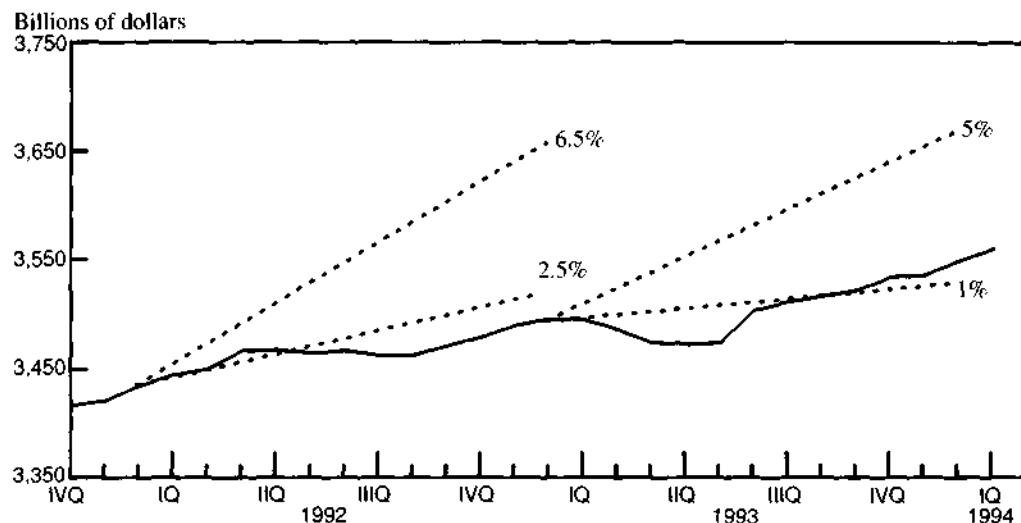
In regard to more immediate policy matters, the Committee continued its vigilance over inflation. Not wishing to give in to the inflationary psychology that could be developing, the Fed maintained its tightening bias despite criticisms from some quarters that if the bias materialized into an action, it could eventually hinder the perceived fragile state of the economy. Nevertheless, the asymmetric directive remained in place until the August meeting of the FOMC. The stage had been set to allow for a turnaround in confidence of both households and businesses without an accompanying surge in inflation.

■ The View in Retrospect

In retrospect, the relatively gloomy outlook for inflation and economic activity at midyear seems to have been overstated. Indeed, the year apparently turned out to be more like original expectations had conceived. The inflation threat receded, as CPI inflation came in at 2.7 percent for the year, within the central tendency ranges reported in February. Long-term interest rates resumed a downward trajectory as news on inflation improved (see figure 4).

Although some may argue that the inflation outcome was a transitory response to weak oil prices in the second half, the core inflation measure reported in a 1993 Federal Reserve Bank of Cleveland study was also 2.7 percent.⁵

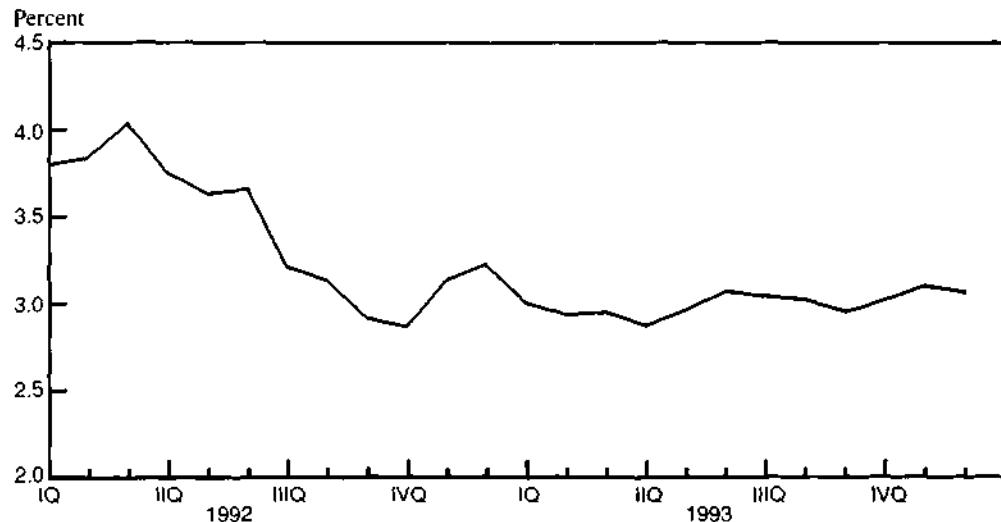
FIGURE 5 THE M2 AGGREGATE^a



a. Dotted lines represent target ranges.

SOURCE: Board of Governors of the Federal Reserve System.

FIGURE 6 THREE-MONTH U.S. TREASURY BILL RATE



SOURCE: Board of Governors of the Federal Reserve System.

Figure 7 reveals that this core measure was essentially unaffected by the sustained oil price weakness in 1986 and suggests that the recent slowdown in inflation is not transitory.⁶

Real GDP, while growing only around 1½ percent in the first half of 1993, accelerated sharply over the course of the year. Preliminary data suggest that second-half GDP growth will come in at a rate at least double that of the first half. Moreover, output growth is subject to further potentially substantial revisions, so that the final number could be closer to the original projection than the level at midyear.

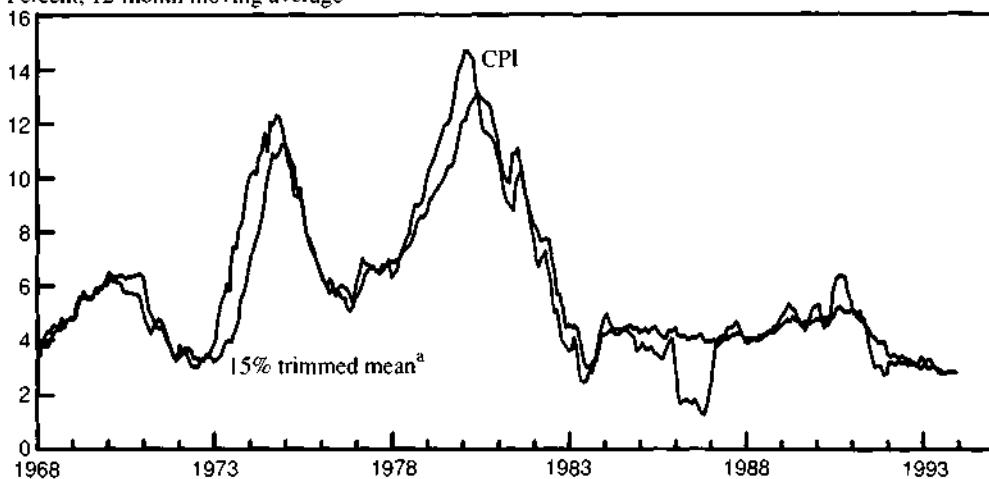
With evidence of a stronger economy, interest rates tended to firm late in the year. Nevertheless, long-term rates remained below their midyear levels. By the end of December, the M2 aggregate had increased slightly above 1½ percent, within target ranges set in July, but below its original range.

■ Trend Inflation

Market reaction to the perceived inflation threat in early 1993 may now seem to have been exaggerated. After all, one would need to go back to 1966 to find a calendar year in which inflation was as low as it was in 1993 (see

FIGURE 7 INFLATION MEASURES, 1968-93

Percent, 12-month moving average

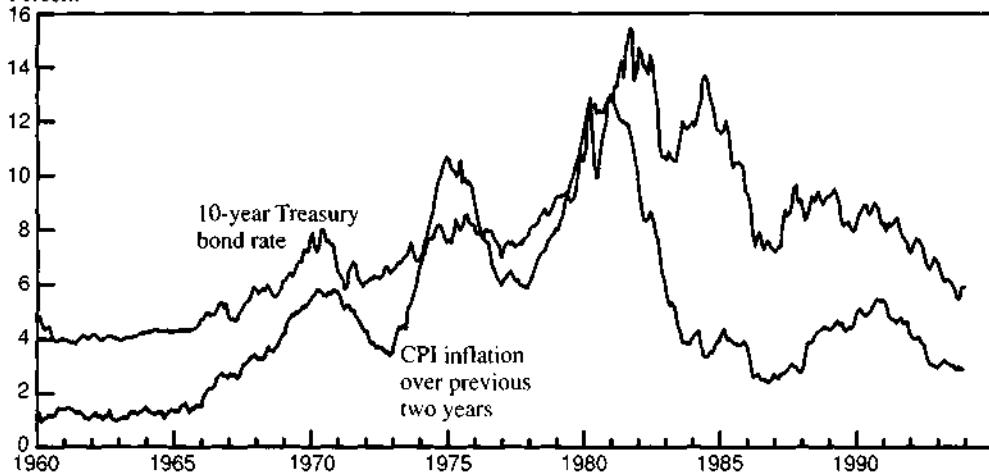


a. As computed by the Federal Reserve Bank of Cleveland.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and the Federal Reserve Bank of Cleveland.

FIGURE 8 LONG-TERM INTEREST RATES AND INFLATION

Percent



SOURCES: Board of Governors of the Federal Reserve System; and U.S. Department of Labor, Bureau of Labor Statistics.

figure 8). Moreover, since the last business cycle trough, CPI inflation has averaged just under 3 percent, more than half a percentage point lower than in the first three years of the previous cyclical upturn.

Thus, one perhaps should not be surprised that bond rates continued to fall in 1993, reaching levels not seen in 20 years. The long-term decline in inflation has been central to the continuing drop in bond rates because the inflation experience since 1982 demonstrates a credible commitment to preventing a repeat of the 1970s. But why, then, aren't long-term interest rates closer to 1966 levels?

Although any number of factors may account for the relatively higher rates—including the magnitude of the federal deficit and the worldwide return on capital, among other things— one possible explanation is that bond holders do not believe that inflation will persist at the recent lower levels. Survey data reveal that price-level expectations have remained above recent rates of actual inflation. Indeed, according to the University of Michigan survey, households expect 1994 inflation to be closer to 4 percent.

Assessing the direction of trend inflation is difficult, particularly since the breakdown in M2 velocity in 1990. Before then, it was widely held that over sufficiently long periods, trend inflation could be reduced by following a policy that lowered the trend growth of M2. By achieving money growth within the decelerated ranges, the FOMC could demonstrate a commitment to further reducing inflation.

Although monetary policy reports to Congress typically express the Committee's intent to continue its progress toward price stability, explicit targets are not set. Some policymakers have noted that this gives the public no clear standard by which to gauge the success of monetary policy.⁷ In response, many analysts have advocated an explicit nominal anchor by which the FOMC's longer-term intentions could be identified. In the absence of such an objective, they contend, markets lack a clear basis on which to make judgments concerning the trend in inflation.

■ Lessons from 1993

Despite a year in which the Federal Reserve took no deliberative action to affect the federal funds rate, long-term interest rates ended up declining from 1992 levels. Notwithstanding the diminished role of monetary targeting, financial markets appear to exhibit a degree of confidence that the Fed will not repeat the mistakes of the 1970s. The mere hint of a policy tightening bias last May appeared sufficient to reassure market participants of a monetary policy response in the event of a persistent inflation flare-up. Although the FOMC may have established credibility that it will prevent a significant acceleration in the price level, long-term interest rates do not provide a clear signal that markets expect inflation to continue to recede to levels experienced in the late 1950s and early 1960s.

Advocates of price-level targeting argue that without a commitment to an explicit multiyear price-level objective,

markets lack a concrete basis for expecting further progress toward price stability. They believe that commitment to a target path for the price level could limit the range of expectations about future inflation, as well as ensure that the outcome will be consistent with those expectations.⁸ As in decades past, people might then become more inclined to view *increases* in inflation as temporary. Moreover, they might have a basis for expecting long-term interest rates to fall within a range of 2½ to 5 percent, characteristic of the earlier period.

■ Footnotes

1. The central tendency is essentially a modal range that excludes outliers of the Committee members' forecasts.
2. Over the past seven calendar years, the M2 range has been lowered by one-half percentage point five times, while it has been left unchanged in the other two years.
3. See *1993 Monetary Policy Objectives: Summary Report of the Federal Reserve Board*, February 19, 1993, p. 17.

4. See *1993 Monetary Policy Objectives: Summary Report of the Federal Reserve Board*, July 20, 1993, p. 8.
5. See Michael F. Bryan and Stephen G. Cecchetti, "Measuring Core Inflation," Federal Reserve Bank of Cleveland, Working Paper 9304, June 1993. The commonly reported core measure of inflation is the CPI less food and energy components, which rose 3.2 percent in 1993.
6. Inflation expectations as measured by the University of Michigan's Survey of Consumers became more favorable, continuing to ease through the end of the year after peaking in August at nearly 5 percent. For the first time in 1993, expected inflation fell below 4 percent in November, to 3.6 percent for the next 12 months. December expectations edged upward slightly to 3.8 percent.
7. See Jerry L. Jordan, "Credibility Begins with a Clear Commitment to Price Stability," Federal Reserve Bank of Cleveland, *Economic Commentary*, October 1, 1993.
8. *Ibid.*

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