

Maintaining a Low Inflation Environment

by John B. Carlson

The slight firming of monetary conditions is viewed as a prudent step that affords greater assurance of prolonging the current economic expansion by sustaining the existing low inflation environment through the rest of this year and next. The experience of the last several years has reinforced the conviction that low inflation is essential to realizing the economy's fullest growth potential.

— FOMC, March 25, 1997

Immediately after its March 25 meeting, the Federal Open Market Committee (FOMC) announced that it had “decided to tighten money market conditions slightly, expecting the fed funds rate to rise $\frac{1}{4}$ percentage point to around $5\frac{1}{2}$ percent.”¹ This was the Committee’s first action in almost 14 months and the first increase since January 1995.

The FOMC’s policy actions receive a great deal of attention in the financial press, and the recent rate hike was no exception. Reports typically focus on the possible near-term consequences of interest rate changes, including the potential impact on other interest rates and on asset prices. If investors believe that an increase in the federal funds rate is likely to be persistent or to be followed by additional rate hikes, other interest rates typically rise as well (although less than proportionally). Financial market commentary sometimes speculates that higher interest rates will lead to an economic downturn.

Experience in the 1970s revealed a strong negative correlation between significant moves in interest rates and subsequent economic activity. Yet, interest rates can rise markedly without causing a downturn in the economy. Between January 1982 and August 1984, for example, FOMC actions drove the federal funds rate up 300 basis points (b.p.), to 11.6 percent. Although the economy’s rate of expansion slowed, it still grew at a 3.3 percent pace over the following two years. In 1994, the funds rate again increased 300 b.p., yet the economy expanded nearly 3 percent over the last two years and 4.0 percent over the last four quarters.

What makes these experiences different from that of the 1970s? The answer, I believe, is that the FOMC’s actions since 1982 have demonstrated the Federal Reserve’s determination to achieve and maintain price stability. This policy stance has fostered conditions that allow the economy to attain its fullest growth potential. If the Committee had failed to act in a manner consistent with maintaining stable prices, it would have risked allowing inflationary imbalances to develop. These imbalances could then have been eliminated only with even greater and more persistent rate increases, such as those required in the 1970s. It is this persistence that is more likely to induce economic contractions.

■ The Inflation Scare Problem

Evidence for this thesis can be found by reviewing monetary policy since 1982 in the context of a framework proposed by Federal Reserve economist Marvin Goodfriend.² He postulates that the

Monetary policy since 1982 demonstrates that the federal funds rate can vary substantially with few or no adverse economic consequences. In fact, funds rate increases in response to inflationary pressures have been associated with robust growth in recent years. The economy’s favorable performance over the past decade and a half highlights the importance of maintaining the existing low inflation environment.

Fed’s primary problem is the acquisition and maintenance of credibility in its commitment to low inflation.³ Key to this analysis is Goodfriend’s formulation of the inflation scare problem.

An inflation scare is defined as a significant rise in long-term interest rates in the absence of an aggressive policy response. Fluctuations in long-term rates are driven by two components: one connected with the current funds rate target that anchors short maturity rates, and one driven by inflation expectations. An inflation scare occurs when the FOMC does not raise the funds rate enough to prevent investors from questioning the credibility of its commitment to maintaining stable prices. Failure to respond promptly and adequately to such a scare risks a crisis in confidence that encourages higher inflation.

To avoid inflation scares, the FOMC must take pre-emptive action if incoming data indicate a greater risk of future inflation. In principle, this requires the

FOMC to adjust its funds rate target over the business cycle to prevent excessive money growth. In the early 1990s, however, the reliability of money measures as indicators of inflation was called into question. In fact, evidence showed that the relationship between money and economic activity had become permanently disturbed. Since 1993, the FOMC has been operating without a widely accepted guideline for money growth, a process that has complicated the group's efforts to anticipate and respond to incipient signs of inflationary pressure.⁴

Pressure on the price level can arise if the FOMC does not adjust the funds rate in the face of changing credit demands driven by cyclical fluctuations in economic activity.⁵ For instance, credit demand is typically strong near the peak of a business cycle. This tends to put upward pressure on market interest rates. If the FOMC does not respond by sufficiently raising the funds rate, at some point inflation will rise and will have to be counteracted by corrective actions more likely to depress economic activity. The go/stop policies of the 1970s provide a clear example that waiting until the public recognizes that inflation is a problem means waiting too long.⁶

■ The Post-1982 Experience

By contrast, the policy experience since 1982 provides examples of the FOMC's efforts to pre-empt inflation. During this time, the funds rate was increased over sustained periods on three occasions: August 1983 to August 1984, April 1988 to March 1989, and February 1994 to February 1995 (see figure 1). Below, I discuss each of these episodes in turn.

August 1983–August 1984

After enduring the worst recession since the Great Depression, the economy rebounded sharply in 1983 and continued to grow at nearly a 6 percent pace throughout 1984. The 1985 *Economic Report of the President* attributed the robust economic expansion and high real interest rates to tax policies that raised the real after-tax rate of return on new business investment. With such a favorable return on new investment, it became worthwhile for firms with good investment opportunities to borrow at the higher rates.

Investment booms, however, are by nature transitory. It is thus hard to reconcile such an event with the substantial rise in long-term interest rates that occurred in the year ending June 1984. The yield on the 10-year Treasury bond, for example, increased 200 b.p. over that period. Hence, the rise in long rates partly reflected growing inflation expectations (see figure 2), while the run-up in the federal funds rate, which lagged, largely reflected an effort by the FOMC to contain an inflation scare.

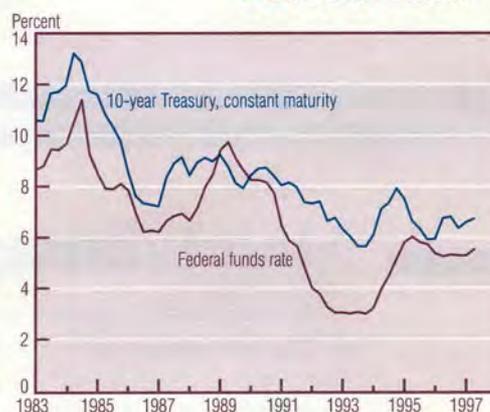
Real interest rates also rose, but by less than nominal rates (see figure 3). Although inflation expectations picked up between the fall of 1983 and the summer of 1984, an acceleration in core inflation failed to materialize, and inflation expectations fell sharply over the following two years. In 1985, financial markets became more confident that inflation was contained, and long-term nominal interest rates generally fell, reaching cyclical lows in the fall of 1986. As evidence accumulated that the trend inflation rate was settling down to around 4 percent, the FOMC lowered the funds rate to the mid-6 percent range.⁷

April 1988–March 1989

An acceleration in economic activity in 1987 was accompanied by a 200-b.p. increase in long-term rates between March and October. Between April and October, the FOMC raised the intended federal funds rate from 6 to 7³/₈ percent. This course was reversed sharply in October in the face of dramatically declining stock prices, with the funds rate being pushed down more than 60 b.p. over the following five months. Then, a series of funds rate increases was resumed in April 1988, but not in time to head off an abrupt jump in the trend of core inflation. Hence, policy actions over the course of the following year were largely directed at reversing an acceleration in the price level.

From April 1988 to March 1989, the funds rate increased more than 300 b.p., while the 10-year Treasury rose only 100 b.p. Breakpoint analysis suggests that the sudden increase in the core inflation trend was contained and that the index began drifting down somewhat later, in

FIGURE 1 FED FUNDS RATE AND THE 10-YEAR TREASURY YIELD



SOURCE: Board of Governors of the Federal Reserve System.

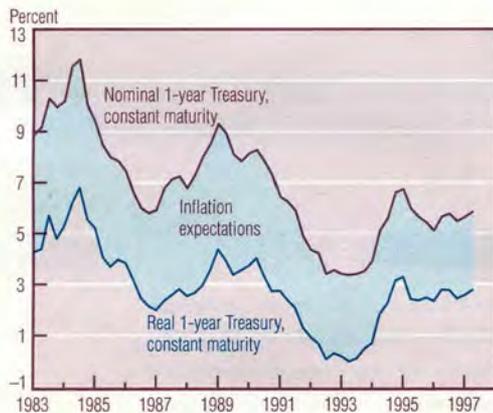
FIGURE 2 INFLATION EXPECTATIONS^a



a. Data reflect year-ahead expectations.
SOURCE: Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters.

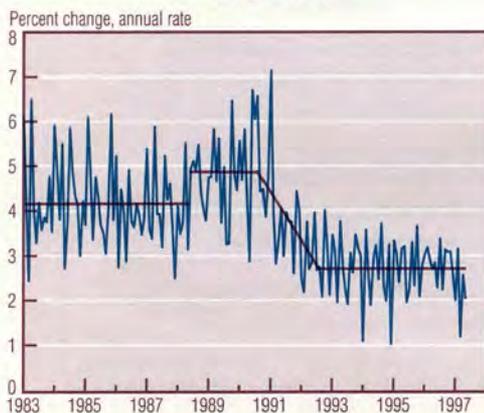
August 1990 (see figure 4). Moreover, this episode was followed by a recession beginning in 1990, implying that the necessary corrective policy actions may have exacerbated a weakening economy. It should be pointed out that this period included an oil price shock induced by Iraq's invasion of Kuwait, which could account for a downturn in economic activity. Nevertheless, had the FOMC been able to follow through on the policy tightening initiated in 1987, the need for a corrective response would have been mitigated. Hence, the economy would have been less vulnerable to the oil supply shock.

FIGURE 3 NOMINAL AND REAL INTEREST RATES



SOURCES: Board of Governors of the Federal Reserve System; and the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters.

FIGURE 4 CORE INFLATION SINCE 1982^a



a. Core inflation is measured as the trimmed mean of the Consumer Price Index. Brown lines represent trend rates determined by breakpoint tests.

SOURCE: Federal Reserve Bank of Cleveland.

February 1994–February 1995

With evidence that inflation had been contained, long-term rates began to head down in the spring of 1989 and continued this trend until the fall of 1993. A subsequent rise in long rates that began in November of that year represented a potential inflation scare. The FOMC responded vigorously, raising the intended funds rate 300 b.p. between January 1994 and February 1995. Inflation remained steady and has continued to vary around its mean rate since August 1992.

When inflationary pressures abated, market interest rates fell, and the FOMC reduced the intended federal funds rate in

three 25-b.p. increments until it reached 5¼ percent by mid-winter 1996. The rate remained around this level until the March policy action, a period of almost 14 months. Long-term interest rates bottomed out around the beginning of 1996 and increased slightly in the early months of the year. The 10-year Treasury, for example, rose to nearly 7 percent in June 1996 and has been varying just under that level ever since.

Long-term rates, however, remain well below their 1994 peak levels, suggesting that the inflation scare of 1994 has been arrested. Moreover, although the funds rate has retraced less than a third of its advance over this period, the economy has showed great resilience, and inflation has not accelerated. Indeed, it has been decades since there has been such a favorable constellation of low inflation, low unemployment, and high output growth. To a large extent, this outcome is a consequence of the FOMC's timely responses to inflationary pressures.

■ **Concluding Thoughts**

Since 1982, U.S. output growth has exceeded 3 percent per year. This compares with an average annual growth rate of 2.3 percent over the previous 15 years. Moreover, economic expansion in the later period has been interrupted by only one recession, ending six years ago. Inflation, by contrast, is now substantially below its 1980s' trend rate.

One of the fruits of achieving a low inflation environment is that inflation expectations have fallen substantially. This, in turn, has allowed for a trend decline in interest rates. The drop in inflation expectations largely reflects the enhanced credibility of the FOMC's commitment to price stability—a credibility that it acquired by demonstrating a willingness to respond to inflationary pressures before they could become permanently embedded in a higher inflation trend.

The post-1982 experience also demonstrates that the funds rate can vary substantially with few or no adverse economic consequences. The first and third episodes of rate increases were followed by relatively robust economic conditions and stable inflation. They represent

examples of pre-emptive policies. The middle episode, although followed by a recession, came too late to head off an increase in inflation.

It is not clear that any policy can reverse an acceleration in the price level without risking a decline in output. This suggests that it is imperative for the FOMC to anticipate inflationary imbalances and to take action before inflation becomes embedded in a higher trend rate. Such policies could mean raising the funds rate substantially and expeditiously. The post-1982 experience suggests that such timely actions may be necessary to maintain the low inflation environment required for the economy to realize its fullest growth potential.

The FOMC's main tactical problem is deciding when pre-emptive actions are necessary and how aggressive they should be. Some analysts fear that the Committee's approach to this problem since 1982, while successful, may not be sufficient to deal with all situations. In their view, the central bank's commitment to price stability could be strengthened by legislative mandate.⁸ A bill proposed by Senator Connie Mack (R-Fla.) would make low inflation the primary goal of monetary policy.

In addition, the FOMC's tactics might be enhanced by a strategy that includes intermediate targets for nominal GDP or some money measure. For much of the post-1982 period, the Committee set annual targets for M2 as the primary guide for policy. Although the relationship between M2 and economic activity has broken down, evidence is accumulating that it may again become a reliable indicator. If M2 velocity does stabilize around some new level, efforts to keep the aggregate's growth trend low would also keep inflation in check.

■ Footnotes

1. This article went to press on July 8, 1997.

2. See Marvin Goodfriend, "Interest Rate Policy and the Inflation Scare Problem: 1979-1992," Federal Reserve Bank of Richmond, *Economic Quarterly*, vol. 79, no. 1 (Winter 1993), pp. 1-24.

3. The notion of credibility is important because it can contain movements in inflation expectations reflected in long-term interest rates. For example, to the extent that a policy is directed at keeping inflation low (say, below 2 percent), one might expect the 10-year Treasury bond rate to range between 2 and 7 percent over a normal business cycle. To the extent that such a policy is not credible and the potential exists for inflation to accelerate to 1970 rates, one might expect the same Treasury rate to be well above 10 percent.

4. In July 1993, Federal Reserve Chairman Alan Greenspan announced 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." See *1993 Monetary Policy Objectives: Summary Report of the Federal Reserve Board*, July 20, 1993, p. 8.

5. In a world of perfect credibility, adjustments in the federal funds rate might not be required. For a framework that illustrates this point, see Charles T. Carlstrom and Timothy S. Fuerst, "Interest Rate Rules for Seasonal and Business Cycles," Federal Reserve Bank of Cleveland, *Economic Commentary*, July 1996.

6. For a discussion of this point and a description of policy over this period, see Marvin Goodfriend, "Monetary Policy Comes of Age: A 20th Century Odyssey," Federal Reserve Bank of Richmond, *Economic Quarterly*, vol. 83, no. 1 (Winter 1997), pp. 1-22.

7. The CPI fell to less than 2 percent in 1986 because of a sharp drop in energy prices. Core inflation, on the other hand, remained near its trend rate of just over 4 percent.

8. See, for example, Marvin Goodfriend, "Monetary Policy Comes of Age: A 20th Century Odyssey" (footnote 6).

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The views stated herein are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

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