

ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

restraint. However, short-term interest rates have risen less than one broad-based measure of inflation expectations this year, so short-term real interest rates may have actually fallen.³ Judged by that standard, monetary policy has not tightened in 1988. Thus, if bond, gold, and foreign-exchange market participants are indeed sanguine about the inflation outlook, it may be that they are taking comfort from a belief that policymakers will tighten monetary policy in the future rather than from a belief that policy has already been tightened sufficiently.

■ Conclusions

Inflation has become one of today's major economic issues. Inflation is a formidable foe for policymakers because it has pernicious effects on the economy, its relationship to money growth has become unstable, and its response to monetary policy actions occurs with a substantial lag. The inflation rate has risen this year, and many measures indicate that it is likely to rise still further.

Nevertheless, some financial market participants appear to believe that recent and possible future increases in the inflation rate will be temporary. It

is unclear whether this belief is based on a view that sufficient tightening of monetary policy has already taken place, or on confidence that policymakers will tighten policy with sufficient alacrity and force in the future. Consequently, even the indicators of market participants' inflationary expectations offer little comfort to policymakers.

There can be no doubt that interpreting economic conditions is a difficult task. Certainly there is room for thoughtful people to disagree about the meaning of recent events and about the outlook for inflation. Nevertheless, even if monetary policymakers respond to what turn out to be false signals of a further acceleration of inflation, the consequences need not be seen as undesirable. Since the Federal Open Market Committee wants to "foster price stability over time," responding to false signals would still be consistent with moving toward its goal.⁴

On the other hand, failing to respond sufficiently to accurate signals of more rapid inflation could put policymakers in the position later of playing catch-up, when they eventually confront the more difficult task of reversing an even-more-rapid inflation rate.

■ Footnotes

1. Economic growth is also a problem in the sense that it is so rapid that it is *boosting* the inflation rate. However, if inflation were not a problem, policymakers would not consider recent rates of economic growth to be a problem, either.

2. These and other disadvantages of inflation are discussed in James G. Hoehn, "Stable Inflation Fosters Sound Economic Decisions," *Economic Commentary*, Federal Reserve Bank of Cleveland, May 1, 1988; and William T. Gavin and Alan C. Stockman, "The Case for Zero Inflation," *Economic Commentary*, Federal Reserve Bank of Cleveland, September 15, 1988.

3. The inflation expectations measure used here is based on surveys of consumer attitudes made by the University of Michigan Survey Research Center.

4. See "Record of Policy Actions of the Federal Open Market Committee: Meeting Held on June 29-30, 1988," *Federal Reserve Press Release*, August 19, 1988, page 20.

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Assessing and Resisting Inflation

by Gerald H. Anderson

Inflation, rather than economic growth, is the major issue facing monetary policymakers today.¹ Real gross national product (GNP) has been growing rapidly for some time now, and the consensus forecast is that its growth will continue in the foreseeable future.

The inflation situation is much less optimistic. The inflation rate has risen recently, and many indicators point toward even more rapid inflation ahead. Still other indicators are giving mixed signals about how much inflation consumers and market participants expect in the future.

Policymakers are greatly concerned about these developments because inflation has many pernicious effects and because the tools available to combat it are slow-acting.

This *Economic Commentary* explains the importance of early detection of inflation, and why policymakers look at a broad range of indicators of current inflation, future inflation, and inflationary expectations. After examining several of those indicators, the *Commentary* concludes that there is good reason to believe that the inflation rate is likely to rise further, and explains why acting on that belief could be preferable to not acting.

■ Inflation Has Many Pernicious Effects

Inflation, a continuous rise in the general price level, is harmful in several

ways. It redistributes income arbitrarily, it reduces national income by fostering inefficient decisions about production and consumption, it induces people to use scarce resources both to forecast inflation and to protect themselves against or to profit from its income-redistributing effects, and it hampers growth of productive capacity by discouraging saving and investment and channeling resources into suboptimal uses. These adverse effects of inflation probably are greater when the inflation rate is higher and also when the rate is more variable and less predictable.²

■ **Inflation's Relationship With Money Has Become Less Reliable**
Economists have long known that excessive growth of the money stock causes inflation. Moreover, monetarist economists had a thesis that the relationship between money and prices was stable. Consequently, monetarists' debates in the 1970s were about which measure of money policymakers ought to control, and about the optimum rate of money growth for policymakers to seek.

The former relationship between money and prices has been broken in the 1980s by deregulation of financial markets, acceleration of the development of new financial instruments

The inflation rate has risen, and there is good reason to believe that it is likely to rise even further. Although the future path of the inflation rate cannot be known with certainty, a case can be made that it is preferable for policymakers to resist a further acceleration of inflation rather than to wait for more information.

and practices, and reverses in the upward trend of nominal interest rates and inflationary expectations. The new relationship is not sufficiently stable and predictable for monetary policy purposes. Policymakers are now more at sea in their efforts to fashion a noninflationary monetary policy, and have become more dependent on nonmonetary indicators of future inflation for guides to appropriate policy.

■ **Early Detection Is Important**
Early detection of an impending acceleration of inflation is very important, for several reasons. First, policymakers' primary method of warding off an increase in the inflation rate is to slow the growth rate of the nation's

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money stock. However, most economists agree that the impact of a change in the growth rate of the money stock on the inflation rate typically occurs with a lag of more than a year, so policymakers don't have the luxury of waiting until they see the whites of inflation's eyes before firing their anti-inflation weapons. The lag problem is the same if interest rates, rather than money supply, are regarded as the controlling vehicle of monetary policy.

Second, historical experience shows that the inflation rate can rise very quickly. The rate of increase in the implicit price deflator rose from 2.0 percent in 1940 to 6.2 percent in 1941; from 1.6 percent in 1954 to 3.2 percent in 1955; from 1.0 percent in 1961 to 2.2 percent in 1962; from 2.6 percent in 1967 to 5.0 percent in 1968; and from 4.7 percent in 1972 to 6.5 percent in 1973. OPEC raised oil prices too late in 1973 to have accounted for the jump in inflation. The Consumer Price Index, excluding energy, jumped to a 6.1 percent rate of increase in 1973 from a 3.4 percent rate of increase in 1972.

Third, inflation is more difficult to stop after it has accelerated. Many workers, producers, and consumers believe that any new, higher inflation rate will continue. Thus, an increase in the inflation rate increases people's expectations of future inflation commensurately, causing them to make price and wage decisions that foster more inflation.

Moreover, inflation is more difficult to subdue if the credibility of policymakers has been allowed to erode. In the 1960s and 1970s, repeated assertions by policymakers that they would prevent inflation or reduce the inflation rate were not followed by successful anti-inflation efforts. Consequently, policymakers' announcement in October 1979 of a vigorous new program to reduce the inflation rate was met with great skepticism, and it took two severe recessions in the early 1980s to dispel the public's deeply imbedded inflationary expectations. If policymakers now fail to prevent a

further acceleration of inflation, their credibility could again be impaired.

■ **The Inflation Rate Has Already Increased**
Measures of the general price level tend to move together in the long run, but in the short run, shocks from special factors, such as a drought's effects on food prices, a large change in the exchange rate, or a big change in oil prices, can cause the paths of price-level measures to diverge. Consequently, policymakers find it useful to look at more than one measure, and to adjust for any obvious special factors.

Today, most broad measures of prices show that the inflation rate has increased, even when those measures are adjusted for special factors (see chart 1). The GNP fixed-weighted price index, the broadest measure of the prices of domestically produced goods and services, rose 2.7 percent in 1986, 4.0 percent in 1987, and at a 4.2 percent annual rate (a.r.) in the first half of 1988 (1988:IH). In fact, it rose at a 5.0 percent a.r. in 1988:IIQ. The GNP implicit price deflator has accelerated from 2.8 percent in 1986, to 3.1 percent last year, to a 3.6 percent a.r. in 1988:IH, including a 5.5 percent a.r. in 1988:IIQ. The Consumer Price Index had been rising by 4 percent to 4½ percent annually since 1983, but has accelerated to about a 5 percent annual rate of increase in recent months. Excluding its volatile food and energy components, the Consumer Price Index has accelerated from 4.2 percent in 1987 to a 4.5 percent a.r. in the last six months.

■ **Signals of Still-Higher Inflation Rates**
Policymakers monitor many measures of labor costs, of capacity availability, and of prices at early stages of production because those measures can give indications of the likely future performance of the prices of final goods and services. There are, unfortunately, no simple relationships between these indicators and the broad measures of final prices discussed above. Thus, while the indicators can provide an early warning of an increase in the inflation rate, they

can also give false signals of an impending acceleration of inflation.

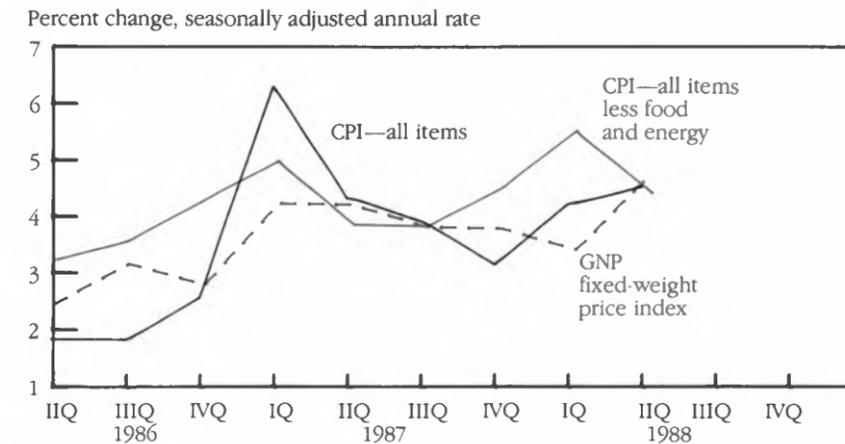
Today, those indicators are signaling that even more rapid inflation lies ahead. For example, the producer price index for finished goods accelerated to a 3.6 percent a.r. in 1988:IH from 2.2 percent last year, and crude materials prices rose 11.0 percent between January and June.

Hourly compensation of private industry workers increased at a 5.3 percent a.r. in 1988:IH, up from 3.2 percent in 1986 and 3.3 percent in 1987 (see chart 2). Unit labor costs accelerated to a 3.0 percent a.r. of increase in 1988:IH from 2.1 percent over the four quarters of last year. Further accelerations of labor compensation are quite likely if the unemployment rate, recently at a 14-year low, and the labor-force participation rate, now at a record high, continue along their recent trends.

That there are upward pressures on prices is hardly surprising. Real GNP has been growing faster than its long-run trend throughout this expansion, and the *level* of real GNP has been above the *level* of its long-run trend, as estimated by the U.S. Department of Commerce, since mid-1985. The positive and widening gap between the two suggests a growing shortage of production capacity. In the late 1960s and again in the late 1970s, similar positive gaps were accompanied by accelerating inflation.

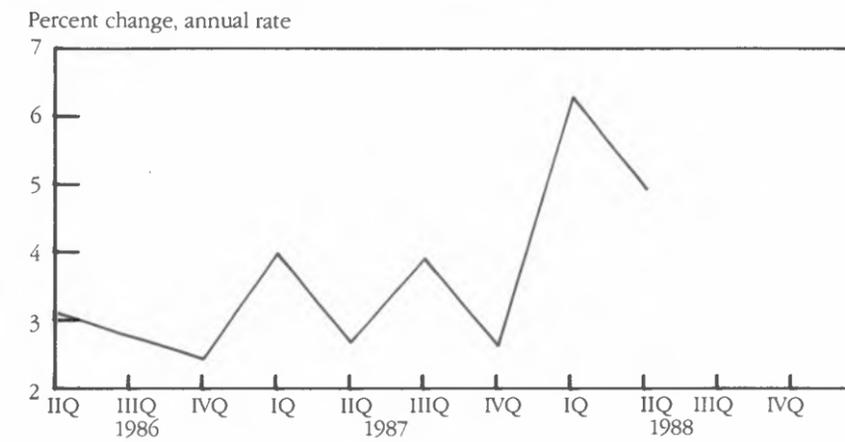
Other measures also suggest strains on production capacity. Capacity utilization in manufacturing is higher than it was a year ago, and is now in a range that in the past has been associated with accelerating prices. Producers of nondefense capital goods are unable to keep up with demand, and their order backlog has been rising for over a year. Capital goods prices have been rising at a roughly 3 percent a.r. in 1988, up from an approximately 2 percent a.r. in the previous four or five years. Purchasing managers continue to report slower deliveries,

CHART 1 INFLATION MEASURES



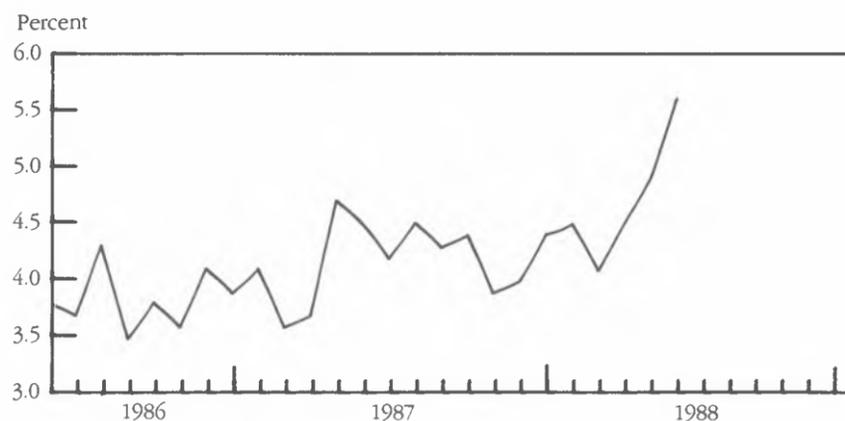
SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; and U.S. Department of Commerce, Bureau of Economic Analysis.

CHART 2 EMPLOYMENT COSTS—PRIVATE INDUSTRY WORKERS



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

CHART 3 HOUSEHOLD INFLATION EXPECTATIONS



SOURCE: University of Michigan Survey Research Center.

higher prices, and increasing numbers of items in short supply.

■ **How Others Read the Signals**
Financial market participants and consumers are importantly affected by inflation, so understandably they form views about its likely course. Policymakers are interested in those views, whether measured directly by opinion surveys or inferred from financial-market data, because they give an indication of how other people are interpreting the indicators of future price behavior that were discussed above.

Consumers expect the rate of inflation to rise still further. One reputable national survey shows that households' mean forecast of consumer price increases for the following 12 months rose from 3.2 percent early in 1986, to 4.0 percent in December 1987, and to 5.4 percent in August 1988 (see chart 3).

Financial market signals are less clear. Long-term interest rates are one to two percentage points above post-recession lows of a year and a half ago, but little changed from a year ago. The dollar has strengthened recently toward mid-1987 levels, and gold prices are down from a year ago. If these are indications that market participants expect the recent, and possible future, acceleration in inflation to be only temporary, then monetary growth and monetary policy may be the reason.

Money growth has been slowing within the target ranges set by the Federal Open Market Committee (FOMC), and the Federal Reserve's midyear report to Congress announced the FOMC's intention to reduce target ranges for money growth in 1989. Federal Reserve Banks raised the discount rate from 6 percent to 6.5 percent on August 9.

Short-term interest rates have been rising steadily since March, as the FOMC gradually increased monetary