Martin Feldstein

Today's low rate of inflation and the current debate about focusing monetary policy on the goal of price stability stand in sharp contrast to the economic situation and the professional debate of twenty years ago. Inflation in the United States was then twice what it is now and on a path toward four times the current rate. Economists underestimated the impact of demand, speaking instead of cost-push inflation and emphasizing the role of trade unions, monopoly businesses, and oil price shocks. Monetary policy's role was viewed as very limited, a vestige of the Keynesian tradition that emphasized the impotence of monetary policy during the depression. The long-run Phillips curve was still the dominant view, offering a permanently lower unemployment rate in exchange for accepting a higher rate of inflation. Economists provided no serious rationale for reducing inflation, focusing their case against inflation on the distorting effect of inflation on the demand for narrow money balances, an argument that the defenders of the existing inflation could derisively dismiss as an attempt to economize on the shoe leather costs of frequent trips to the bank. Some even turned this argument on its head, advocating a higher rate of inflation as a way of encouraging households to substitute real capital for money balances.

Why have things changed so radically in two decades? Why do the Federal Reserve, the public, and our elected officials accept price

stability as the appropriate goal of monetary policy? And why has monetary policy brought us so close to achieving that goal?

In the United States, the public reacted to the pain caused by the increase in inflation that pushed interest rates up sharply at the end of the 1970s. The higher interest rates hurt small businesses and farmers who had to borrow at variable interest rates, reduced the home-buying ability for the millions of individuals who saw the monthly mortgage payments slip out of reach, and pushed many small banks and thrift companies into insolvency.

By 1980, the U.S. inflation rate had reached a double-digit level. The public feared that inflation was out of control and might spiral higher and higher. These concerns and the damaging effects of inflation that had already been sustained provided political support for the painful contractionary policies needed to reduce inflation.

But the shift to an anti-inflationary monetary policy was also the effect of the intellectual revolution that had taken place. The economics profession rejected the notion of a long-run Phillips curve. The consensus shifted to the view, advocated in 1968 by Milton Friedman, that there is no long-run tradeoff between unemployment and inflation. The economics profession also recognized the power of monetary policy to reduce inflation by moving along a short-run Phillips curve. Although the case for low inflation was never well articulated, today no one advocates raising inflation from 3 percent to 5 percent in order to reduce unemployment.

But what of the future? When the economy is next in recession, will there be support among the politicians and the economics profession for increasing inflation in order to speed the return to full employment? More generally, will (and should) the Federal Reserve and other central banks take the steps needed to shift from low inflation to price stability?

I believe that price stability should be the goal of monetary policy and that it should be achieved in the United States within the next four years. More precisely, the goal should be an inflation rate of

not more than 1 or 2 percent. This rate would equate the measured rate of increase of the consumer price index (CPI) with the estimated bias in the rate of inflation. At an inflation rate of between 1 and 2 percent, the purchasing power of the dollar would be preserved. I think that a case could also be made for going further to a zero measured inflation rate even though that implies a rising purchasing power of the dollar.

I will begin by discussing the gain that would result from going from low inflation to price stability. I will then consider the arguments that have been advanced for accepting a higher inflation rate and will explain why I think those arguments are wrong. Finally, I will turn to the question of timing and consider the issue of when and how fast the Federal Reserve should move to price stability.

The case for price stability

Although there is strong evidence that very high rates of inflation reduce the rate of economic growth, there is no persuasive evidence that growth would be faster with full price stability than it would be at a low single-digit inflation rate. Why then should we regard price stability as a desirable goal?

Many reasons have been adduced for reducing an already low rate of inflation. Price stability is desirable because it is easier to maintain (that is, it requires less deflation) in the face of inflationary shocks than even a moderate rate of inflation because the public has more confidence in a central bank that has achieved price stability. Price stability also aids those individuals who have difficulty in long-term financial planning in an environment of uncertain or rising prices. I shall not comment on these reasons or try to quantify them.

My own thinking and research about the benefits of price stability have focused on the effect of inflation on the allocation of resources and, therefore, on the level of real income. The most important such effect is the interaction of taxes and inflation. Let me explain. ¹

Our system of taxing capital income would distort the allocation of resources even if there were complete price stability. Two of the most important such distortions are the bias in favor of current consumption (rather than retirement consumption or other postponed consumption) and the bias in favor of investments in owner-occupied housing rather than other uses of capital. Because of the way that our personal income tax and our corporate income tax work, these distortions are exacerbated by inflation. At a 3 percent rate of inflation, the biases in favor of current consumption and in favor of owner-occupied housing are bigger than they would be at a 1 percent rate of inflation.

How important is this effect of inflation? My detailed calculations indicate that the interaction of taxes and inflation has a very large effect. Looking just at the impact on the household sector—that is, ignoring the effects on the structure of business investment and the international allocation of investment—I have estimated that reducing the inflation rate by two percentage points (for example, from 3 percent inflation to 1 percent inflation) would raise the level of real GDP by 1 percent. This is a permanent effect. GDP would be higher by 1 percent each year in the future as long as the inflation rate remained at its lower level.²

The technical analysis that leads to this conclusion is presented in Feldstein (1996). The calculations do not assume a large responsiveness of savings to net-of-tax interest rates. Even with the extreme assumption that changes in the real net-of-tax interest rate do not change saving at all, a two-percentage-point reduction of inflation would permanently raise the level of real GDP by two-thirds of 1 percent.³

The case against price stability

Four arguments against going from low inflation to price stability have been presented in the economics literature and discussed at this meeting. Although there may be some validity in each of them, I do not believe that either singly or collectively they outweigh the tax-inflation case for going to price stability or even to a lower inflation rate.

Mismeasurement of inflation

There is widespread agreement that increases in the CPI overstate the true rise in the cost of living. This overstatement is generally believed to be between 1 percent and 2 percent a year.

This implies that the inflation rate should nevertheless be reduced from the current level of about 3 percent to between 1 percent and 2 percent to maintain the purchasing power of the dollar.

But the tax argument provides a case for going beyond the inflation rate that corresponds to the constant purchasing power of income. A lower measured inflation rate would reduce the deadweight loss of the tax system and increase the level of real income.

More generally, even if a constant purchasing power of money is regarded as the primary goal of monetary policy (rather than using negative inflation to reduce tax distortions), the tax-inflation analysis implies that the appropriate response to uncertainty about the correct measure of inflation is to take the risk of having too little inflation rather than too much inflation.

Short-run cost of disinflation

Economists recognize (although central banks do not always admit) that reducing the permanent rate of inflation requires a temporary loss of output. Estimates of the short-run Phillips curve imply that reducing the inflation rate by two percentage points involves an output loss over time equal to five percentage points of GDP, for example, a shortfall of GDP below what it would otherwise be of 2.5 percent for two years.

Although this is a large and serious cost and involves significant hardship for some of those who become unemployed or remain unemployed in the process of disinflation, the 5 percent of GDP one-time cost is small when compared to a permanent increase in real income equal to 1 percent of the rising level of GDP year after year.

This comparison makes a very strong case for reducing inflation from the current 3 percent rate of CPI increase to a 1 percent CPI inflation rate or less.

A long-run Phillips curve at low inflation

The notion of a long-run Phillips curve linking unemployment and wage increases has been rejected on both empirical and theoretical grounds. A large volume of empirical literature has established that there is no long-run tradeoff between the rate of unemployment and the rate of increase of money wages. This empirical finding was anticipated by theoretical analyses that emphasized that such a relation could only persist if employers and employees failed to distinguish between nominal wage increases and real inflation-adjusted wage increases.

The evidence based on past economic experience cannot speak unambiguously to what might happen at very low inflation rates. When the inflation rate is (say) 4 percent, an individual who gets a nominal wage increase of 1 percent has a real wage decrease of 3 percent. To achieve that same real wage decrease when inflation is only 1 percent would require that nominal wages fall by 2 percent. Although the real wage decrease is the same in both cases, it is argued by some that it would be much harder to achieve if it required nominal wages to decline. If cyclical fluctuations require some real wages to be reduced temporarily but nominal wage reductions are hard to achieve, price stability or very low inflation may lead to a higher level of unemployment. In short, a reluctance to accept negative nominal wage changes may create a long-run Phillips curve at low levels of unemployment.⁴

Although the proponents of this view can point to the difficulty of achieving negative wage changes in the past, such evidence is all based on the experience in an economy with inflation rates of 4 percent or more. In that context, a fall in nominal wages corresponds to a very large real wage decline of more than 4 percent. In a very different inflation environment, in which the inflation rate has been approximately zero for a long period of time, the difficulty of

negative changes may be substantially less. I find it unlikely that such money illusion would be a permanent factor of the economy.

There are, moreover, opportunities to reduce an individual's compensation without reducing the individual's money wage rate. One way would be to reduce fringe benefits, including changes in such things as post-retirement medical care, employer pension contributions, health plan features, and so forth. Such changes could actually achieve long-term reductions in the real cost of employment. The ability to make short-term reductions in employment costs can be enhanced by shifting to greater reliance on variable compensation with bonus payments that can fluctuate with business conditions.

Even if experience were to indicate that price stability was accompanied by some increase in unemployment, the resulting loss would have to be balanced against the very substantial gain that results from lower inflation through the tax-inflation interaction.

Of course, if future experience were to show that price stability did lead to an increase in unemployment of a magnitude that outweighs the price stability gains from the inflation-tax interaction, a shift to an expansionary monetary policy could raise the rate of inflation and reduce the level of unemployment. But until the evidence of such a rise in unemployment is clearly perceived, it seems quite inappropriate not to seek the quite certain gains that would follow lower inflation because of a fear that doing so might impose costs that must now be regarded as uncertain.

Impaired effectiveness of monetary policy

Price stability makes it difficult for the Federal Reserve to achieve a large reduction in the real rate of interest during a cyclical downturn because the nominal interest rate must be greater than zero. When inflation is normally 4 percent and the short-term interest rate is normally 6 percent, the Fed can reduce the real interest rate from 2 percent to minus 2 percent by cutting the nominal rate to 2 percent. It is impossible to get such a reduction in the real interest rate if the nominal rate starts at only 2 percent.

The inability to achieve a sharp decline in short-term interest rates does not mean that monetary policy is ineffective in recession. Expansionary monetary policy may be able to reduce long-term interest rates and to raise the price of equities, two aspects of the cost of funds that may be more important than short-term interest rates. Expansionary monetary policy may also be able to increase domestic demand by unsterilized exchange rate intervention.

Moreover, in the context of a fixed short-term interest rate (a liquidity trap in Keynesian terminology), the automatic fiscal stabilizers like unemployment insurance become more effective.

Even if recoveries from deflationary shocks are slower when prices are stable, the GDP losses in those recession years have to be balanced against the gain of price stability that comes from the tax-inflation interaction. A higher real annual income of 1 percent every year could easily outweigh the GDP losses of slower recovery from the occasional recessions.

Once again, this is a hypothetical problem that has not been observed in practice because the economy has not existed with price stability at any time in the past half-century. If the problem turns out to be a real one in practice, the rate of inflation could be raised. But until the problem is realized in practice, it seems unwise to sacrifice the potential gain from lower inflation because of a fear of the hypothetical impact of low inflation on the efficacy of monetary policy.

Timing of disinflation

Whatever the agreed long-term goal for inflation, there are questions of how fast the central bank should seek to achieve its desired level of inflation and under what conditions, if any, it should not act at all. These questions of timing are critical issues in the design of explicit rules for monetary policy and cannot be avoided even with less formal guidelines. The recent discussion about "opportunistic disinflation" (the notion that the Fed should wait until there is a spontaneous recession rather than raise interest rates to reduce

demand) is an important example of the question of when the Federal Reserve might prefer inaction to action.

Appropriate timing depends on two factors, a technical one and a political one. Economists generally emphasize the technical consideration of the speed of adjustment of the expectations of private sector decisionmakers. The faster that those expectations adjust, the less costly in terms of lost output is any given degree of monetary tightening and, therefore, the more rapidly that monetary policy should disinflate. I agree with that analysis but believe that to understand monetary policy we must also look at the political context.

Central banks are ultimately subject to political control. The Federal Reserve is a statutory institution, created by the Congress and accountable to the Congress. From time to time, the Congress threatens to change the composition of the Federal Open Market Committee (FOMC) and the process by which its members are appointed and confirmed.

As a result, the Federal Reserve cannot do things that the public and the relevant elected officials strongly disapprove. Two examples will illustrate this and bring us to the current situation.

The disinflation of 1981-83

Between July 1980 and January 1981, Paul Volcker and his colleagues pushed the federal funds rate from 9 percent to more than 19 percent, precipitating a recession that began in July 1981. The Federal Reserve was able to raise interest rates so sharply because there was very strong public support for disinflation from the double-digit inflation rates that occurred in 1979 and 1980. But although inflation fell to 7.7 percent in the second half of 1981 and to 6.6 percent in the first half of 1982, the Fed kept the fed funds rate at an average of 15.5 percent in the second half of 1981 and at 14.3 percent in the first half of 1982. These very high real rates drove the unemployment rate to over 10 percent in the second half of 1982. This very deep recession was sufficient to cut the rate of inflation

down to only 1.2 percent in the second half of 1982 and to 3.8 percent for 1983 as a whole.

The extremely high real interest rates in 1982 (an average fed funds rate of 12.3 percent for the year as a whole and a CPI increase of 3.9 percent implied a real fed funds rate of 8.4 percent) can be seen as a decision by the Federal Reserve to seize the moment when there was still political support in order to bring the inflation rate down sharply.⁵ It is doubtful that a more gradual policy that reduced inflation to the same 3.8 percent over several more years would have been politically viable.⁶

The current situation

Consider, finally, the current situation in August 1996. The core rate of measured CPI inflation is between 2.5 percent and 3 percent. The real federal funds rate is about 2.5 percent. Why not disinflate further now if, as Chairman Greenspan frequently states, the Fed's goal is price stability?

The FOMC members can see that money wages are rising more rapidly than a year ago, that the unemployment rate and capacity utilization are well beyond recently experienced levels at which inflation accelerates, and that real output is growing rapidly. I think there is a strong technical case now for increasing the interest rate in order to prevent a rise in inflation and to reduce the existing inflation toward price stability.

But there is no public or political support now for such tightening. Inflation has remained low, with the core CPI rising at a steady rate of less than 3 percent for several quarters. Although monetary policy should reflect inflationary pressures and forecasts of future inflation, it would be difficult to argue that the inflation will soon be rising after more than six months in which most economists have been surprised by the lack of an increase in inflation.

If there were a real danger of a sharp rise in inflation, the Fed might move even without public support. But with little such risk now, the

Fed has chosen to conserve its political capital—waiting for a time when there is clear evidence of rising inflation before it increases the fed funds rate.

But that day is likely to come. I hope that when it does, the Fed will act firmly and that doing so will provide the occasion for what the Fed may then call an opportunistic disinflation to true price stability.

Endnotes

¹This discussion of the interaction of inflation and taxes is based on the research reported in Feldstein (1996) and the papers cited therein.

²Note that going from 1 percent inflation to minus 1 percent inflation (that is, to actual deflation) would produce an additional real income gain from the inflation-tax interaction that is almost as large as the real income gain that would come from decreasing inflation from 3 percent to 1 percent.

³The gain from reduced inflation is the reduction of the deadweight loss in the intertemporal allocation of income and in the allocation of capital between housing and other uses. The magnitude of the gain from lower inflation is not the small "triangle" of traditional welfare analysis because inflation exacerbates an existing deadweight loss, causing a much larger "trapezoid."

⁴This argument has recently been developed by Akerlof, Dickens, and Perry (1996).

⁵One indication of just how high rates were in 1982 is that the federal funds rate was five percentage points higher than the level predicted by John Taylor's interest rate "rule" as calibrated to the Greenspan years.

⁶The back-to-back recessions that began in January 1980 and ended in November 1982 with only a six-month gap in between, meant a period of downturn of nearly three years and thus, nearly three times as long as the typical postwar recession.

References

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