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Revisiting Zero Inflation

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## Revisiting Zero Inflation

As a public speaker, I have learned that there are two key ingredients that make a speech lively and energetic. First, the speaker must feel strongly about the subject. Second, the subject must be somewhat controversial. Today's talk -- the revisiting of zero inflation -- promises a high degree of excitement for any group of economists.

Zero inflation, I believe, is the most important objective of monetary policy. My fear is that many people are complacent about an inflation rate of 4 or 5 percent. The recent uptick in inflation measures has aroused some attention, but the general public and even some economists remain skeptical of a goal of price stability.

Today, I would like to respond to the four questions I am asked most frequently concerning price stability. What do I mean by a policy of price stability? Would a goal of zero inflation require changes in Federal Reserve operating procedures? What is wrong with a little inflation? And aren't the costs of achieving zero inflation too high?

I do not promise to have or know the ultimate answers to these questions. But I am convinced that the benefits of having a stable price level overwhelm the costs. Furthermore, I think the costs of achieving and maintaining price stability could be reduced if a zero inflation policy is deemed credible by the public.

### WHAT IS A ZERO INFLATION POLICY?

A successful zero inflation policy would produce no inflation on average, over time, and would induce people to expect no inflation in the future. When I use the term "zero inflation policy," I mean a firm and

explicit commitment to achieve price stability. A zero inflation policy would require a transition period in which we go to zero inflation gradually. The price level would continue to rise for the next few years, but ideally at a lower rate each year. Over a three-to-five-year horizon, the target path would become a constant price level.

A successful zero inflation policy does not mean that actual price indexes would never fluctuate. The Federal Reserve cannot control the price level over short time horizons such as one quarter or even one year. Temporary and unforeseen factors can cause the price level to deviate from the desired policy target. In practice, some shocks to the economy that affect inflation may have to be partially accommodated. The price level might remain slightly above or below the target path for a year or two, but during that time the public would know the Fed's goal. Though the price level might fluctuate slightly from year to year, the public would expect to see a policy stance directed toward returning the price level to the target path. If we have a successful zero inflation policy, actual changes in the price level should average zero over periods of three to five years.

A multi-year target would provide an anchor to the price system. Under the current operating strategy, there is no explicit goal for the price level. This policy allows unforeseen changes in the inflation rate to accumulate and permanently increase the price level. The result is reflected in our rules of thumb for forecasting inflation. The rules that seem to have worked best over the last 20 years or so are rules that advise us to adjust our inflation rate forecast to equal the last inflation rate reported. It is quite difficult to see any tendency of the price level or inflation to return to some "normal" or predictable average.

It should be clear that I am concerned about long-term issues. There is no inherent reason why this zero inflation policy would change any aspect of how the Federal Reserve operates in the short run, between Federal Open Market Committee meetings or at the meetings. Knowing whether the current policy stance was appropriate would require just as much analysis and judgment as it does today.

Consider our current situation. In February, after choosing a consensus monetary policy, the FOMC members and nonvoting Presidents pooled their forecasts for economic activity and inflation in 1989. The central tendency of these forecasts implied that the GNP deflator would rise between 4 and 4-1/2 percent in 1989 (Q4/Q4). Suppose that previously we had adopted a target path for the price level beginning with the 1988:Q4 actual level of the GNP deflator and rising 4 percent in 1989, 3 percent in 1990, and so on until there was no further change in the price level target in 1993 or beyond.

Since I now think that inflation is likely to rise somewhat above this path in 1989, policy should be prepared to err on the side of being too tight. How tight? Judgment is needed to say. Are we tight enough today to get back onto the hypothetical target path? I think economists disagree. However, it is clear that economists and the financial markets do not expect the inflation rate to decline to 3 percent in 1990 or 2 percent in 1991, as in my example. If markets expected price stability within 3 to 5 years, then I would expect the yield on long-term bonds to be much lower, perhaps 4 to 5 percentage points lower than it is today.

If a zero inflation policy were adopted, the debates about policy would be just as lively as they are now. Today, the ongoing debates are about both what level of inflation the current policy stance will achieve and what level

of inflation the policy ought to achieve. Mixing these two issues only confuses the debate and creates uncertainty about the long-term outcome. Why not simply adopt a long-run goal and eliminate this source of uncertainty?

WOULD A GOAL OF ZERO INFLATION REQUIRE CHANGES IN FEDERAL RESERVE OPERATING PROCEDURES?

Critics of a stable price policy argue that such a precommitment would dangerously tie the Fed's hands, causing it to be unresponsive to important shocks and events. I believe that if the Fed were credible about the long-term goal of zero inflation, it would have more flexibility, not less. The argument typically espoused is that policymakers need flexibility to deal with unforeseen events such as financial crises, wars, and supply shocks. Some people argue that the presence of a rule would prevent policymakers from acting sensibly when faced with these unforeseen events.

There is no reason why the Federal Reserve could not have an overriding policy of price stability and still be free to accommodate temporary shocks to the economy. The Federal Reserve could, as it does now, allow the price level to fluctuate in response to supply shocks like last year's drought, an oil price shock, or a shift in the terms of trade. As long as these surprises involve temporary factors, their effects on the price level will be self-correcting.

Consider the drought for a moment. The price indexes rose in 1988 and 1989 in response to the shortfall in food production. As production levels return to normal in 1989 and 1990, we expect offsetting downward pressures on food prices. There was little need for a policy reaction in response to the drought. An easier monetary policy would not have replaced the lost food production, and a tighter monetary policy was not needed to bring the price level back into line with the pre-drought expectations. Looking back over

1988, the Fed tightened, but not in response to the drought. I think the Fed did a good job of looking past the short-term effects of the drought in its analysis of the underlying inflation trend. Policy tightened, not because of the drought, but because there was evidence of rising inflation and inflation expectations across a wide range of markets.

In general, we can never be sure whether changes in the price level are caused by policy or by some factor that may have been either permanent or temporary. Governments and businesses employ economists to sort out such matters. But the uncertainty remains. Overall, it seems optimal to allow these price variations to occur with little immediate reaction from policy. Time and the accumulation of evidence will usually indicate whether a mild or a strong policy response was appropriate. As long as the long-run policy is credible, policy actions should largely be anticipated and the short-term market adjustments should have little effect on long-term economic performance.

While some people argue that committing to zero inflation will limit the Fed's flexibility to deal with unexpected crises, I think about this issue in another way. The Fed would have just as much power to affect the economy in emergency situations, that is, the actions would be just as effective in dealing with crises, if the Fed started from the base of a predictable long-run policy. And a credible commitment to zero inflation adds a bonus: while we are responding to a crisis, the public would not think we are giving up the goal of price stability. It is a misconception to think that the Fed would be less flexible if it had an overriding goal of price stability.

Consider the stock market crash in 1987. Before the crash, inflation and inflation expectations were rising and the Federal Reserve had begun to tighten its policy stance. Confronted by the stock market crash, the Federal Reserve acted very flexibly in providing liquidity to the economy.

Immediately after the crash and substantial policy easing, surveys showed a decline in price expectations at both short and long horizons. But before long, it became apparent that the economy was sound and inflation was still rising. The crisis had passed and policy tightened. Clearly, there is no reason to think that a long-run inflation objective would have constrained the Federal Reserve to act differently in this instance.

#### WHAT IS SO BAD ABOUT A LITTLE INFLATION?

Proponents of inflation argue that a little inflation can be used to our advantage. In other words, inflation is useful to correct or alleviate shortcomings of the marketplace and public policy. For example, some people maintain that inflation can soften the economic blow of the government's budget deficit. The burden of past government debt can be reduced by raising the inflation rate above the expected rate. Furthermore, distortions in the tax laws allow even expected inflation to increase revenue.

The Federal Reserve earns revenue from creating more money during inflationary periods. Some analysts argue that this process can be a worthwhile revenue source. Inflation can also increase tax receipts through the tax system. While inflation may be a source of government income, it is not likely to be an efficient source of revenue in either case. Moreover, people should object because these increased taxes are not legislated.

Any positive rate of inflation magnifies economic distortions associated with the existing tax system because taxes on the return to capital are not adjusted for inflation. A recent study estimated that the cost of 10 percent inflation from this source alone is (as a rough order of magnitude) about 0.7 percent of gross national product (GNP) each year, and possibly as high as 2 to 3 percent of GNP each year.<sup>1</sup>

In addition, inflation causes other economic distortions by interacting with the current tax system to alter the allocation of capital across sectors of the economy, the debt/equity mix chosen by firms, and the choice of asset life. For example, mortgage interest payments are tax-deductible; thus, inflation raises the value of the deduction relative to the real cost of housing, giving people an incentive to over-invest in housing. A similar effect leads firms to acquire more debt rather than to issue new stock when faced with a need for new funds. These costs of inflation could be reduced by appropriate changes in the tax system. But, in the absence of tax changes, the distortions represent substantial costs even with low, stable, and fully anticipated inflation.

An inflationary environment also distorts decisionmaking. Inflation adds "noise," or distortion, to nominal prices. People find it difficult to tell whether a price is high because of inflation or for some other reason, such as high demand or scarce supply. Inflation complicates the calculations that people must make to compare prices at different points in time. It complicates price comparisons and leads to inefficiencies.

Moreover, in any inflationary environment, resources are used to protect against inflation. Inflation creates potential financial losses for people holding money and other assets denominated in dollars. To avoid these private losses, markets adjust by creating financial institutions and instruments that would be unprofitable in the absence of inflation. An obvious example is the financial "advice" industry that is concerned with protecting investments from inflation risk. Inflation has led to the development of new accounting systems and the adoption of shorter planning and contracting periods. COLA clauses and other forms of indexing have evolved to protect various parties in contracts and government programs. Large firms have developed cash management techniques to avoid paying the

inflation tax on their money balances. Markets have been created to trade futures contracts in foreign exchange and interest rates. There was also a brief period in which the financial market traded futures in the government's reported level of the Consumer Price Index. This market folded as the inflation rate declined in the 1980s.<sup>2</sup>

The creation and maintenance of these institutions is an optimal response to an uncertain inflation policy. But, it is socially inefficient compared to a world in which there is a stable price level. The resources used to protect us from inflation could be better devoted to creating products and services that people desire in an inflation-free environment. The costs incurred in minimizing private losses from inflation are greatest when inflation is very high or unpredictable. But significant costs may still be present even at low and stable inflation rates.

Evidence from a large set of countries, with very different institutions and economic conditions, supports this conclusion: long-term economic growth is reduced by inflation and by greater variation in the growth rates of the money supply.<sup>3</sup> This negative effect of inflation on long-term growth may reflect a variety of causes, including adverse effects of inflation on capital formation (either directly or through interactions with the tax system), the use of scarce resources to form socially inefficient institutions, and the distortion introduced into the price system by inflation.

Inflation, at any level, is costly. Inflation distorts important signals of the price mechanism, resulting in a misallocation of resources and inefficiency. A true, credible policy of zero inflation would allow better flows of information and increased economic welfare.

WON'T THE COSTS OF ACHIEVING ZERO INFLATION BE TOO HIGH?

Another, frequent objection to the adoption of a policy of zero inflation is that it would cause a recession, or at least a slowing of growth. I believe that this claim is misguided.

We don't understand recessions completely, but we believe they can be caused by policy actions; by macroeconomic disturbances like droughts, strikes, and wars; by economic and political disturbances in other countries; and by the aggregate effects of many small disturbances to individuals, to firms, and to industries.

Even if we eliminated all effects of policy, we would still have recessions and expansions. Recessions occur because some economic events are unpredictable. They cause past decisions to be wrong -- decisions about where to invest, what to produce, what to buy and what to sell.

Consider for a moment the analogy between recessions and earthquakes. Earthquakes occur when the plates of the earth shift. We don't completely understand what is going on inside the earth, but scientists believe that this shifting may occur in many small quakes or with a few large ones. We have no reason to think that if government geologists suddenly discovered a way to delay the next earthquake that it would be good to do so. In fact, since the plates have to shift by the same amount anyway, we may be causing a more severe earthquake if we try to prevent the small ones.

I think the same is true of recessions. Shifts are occurring in the economy that economists and policymakers do not completely understand -- changing technology and the changing tastes of consumers and investors. Shifts occur which are considered to be uncontrollable -- droughts, oil spills, etc. If we let market forces operate, these changes will be accommodated or corrected in a natural and gradual fashion. Market forces

work best in a stable policy environment. Without doubt there will always be short-term difficulties, but it is to our long-term advantage to allow for some shift in the economic "plates" as the world changes.

Perhaps this earthquake analogy seems to be extreme, but it is no more extreme than the idea that monetary policy can or should be used to eliminate the business cycle. Our attempt at fine tuning the economy with monetary policy during the 1970s probably made matters worse. Certainly, we don't want a variable and uncertain policy to exacerbate the business cycle. It is important to understand that recessions can occur even under an ideal policy.

#### CONCLUSION

A zero inflation policy would improve economic performance over the long haul. Monetary policy can add certainty and stability to the price level over longer horizons without giving up short-term flexibility. Short-term flexibility and the effectiveness of emergency measures are enhanced if the Federal Reserve has long-term credibility.

I also believe that the costs associated with implementing a zero inflation policy are greater today than they would have been if the policy had been adopted two years ago when inflation and inflation expectations were lower and declining. The short-term costs of reducing inflation will be lower if we start from a lower inflation rate and if the policy is credible. The way to reduce those costs is to begin today with a firm commitment to a long-run goal.

Many people have argued that price stability would restrain economic growth. I think just the opposite is true. An economy operates more efficiently with a stable currency, and much of our recent economic success is due to the success we have had in reducing inflation since the 1970s.

We have been through a disappointing couple of years in which we have allowed inflation and inflation expectations to rise by about 2 percentage points. The economy would be more efficiently organized today if we had continued the deceleration of inflation all the way to zero and held it there. We should adopt a policy that, on average, reduces the rate of inflation by one percent per year for the next five years. By 1994 the trend in inflation would be zero, allowing us to direct our economic resources to more productive ends.

Footnotes

1. See Stanley Fischer, "Towards an Understanding of the Costs of Inflation: II," in Karl Brunner and Allan H. Meltzer, eds., *The Costs and Consequences of Inflation*, Carnegie-Rochester Conference Series on Public Policy, Amsterdam: North-Holland Publishing Company, vol. 15, (1981), pp. 5-41.
2. For a discussion of these costs, see Milton Friedman, "The Resource Cost of Irredeemable Paper Money," *Journal of Political Economy*, vol. 94, no. 3 (June 1986), pp. 642-647.
3. See the empirical study of long-run growth rates in 47 countries by Roger Kormendi and Philip G. Meguire, "Macroeconomic Determinants of Growth: Cross-Country Evidence," *Journal of Monetary Economics*, vol. 16, no. 2, (September 1985), pp. 141-63. Theoretical models that reach these conclusions include Robert J. Barro, "A Capital Market in an Equilibrium Business Cycle Model," *Econometrica*, vol. 48, no. 6 (September 1980), pp. 1393-1417; Angelo Mascaro and Allan H. Meltzer, "Long and Short-term Interest Rates in a Risky World," *Journal of Monetary Economics*, vol. 12, no. 4 (November 1983), pp. 485-518; and Alan C. Stockman, "Anticipated Inflation and the Capital Stock in a Cash-in-Advance Economy," *Journal of Monetary Economics*, vol. 8, no. 3 (November 1981), pp. 387-393. In addition to the empirical evidence cited above, recent simulations by Marianne Baxter suggest that these effects may be quite large. See "Approximating Suboptimal Dynamic Equilibria: An Euler Equation Approach," Working Paper No. 139, Rochester Center for Economic Research, University of Rochester, April 1988.