

Flexible Commitment or Inflation Targeting for the U.S.?

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Price stability is the primary focus of central banks, as it should be. Economic theory and recent experience show us that maintaining a reasonably stable price level promotes long-term growth, helps economies run more efficiently, and enhances their capacity to absorb exogenous shocks in the short-run. These benefits arise partly because price stability helps the marketplace infer changing fundamentals and distinguish them from transitory disturbances, and partly because it improves the central bank's ability to conduct effective monetary policy.

Over the past decade or so, a number of central banks around the world have, to good effect, adopted inflation targeting as a means of achieving both price stability and credibility as inflation fighters. The monetary authorities of more than 20 countries, including New Zealand, the United Kingdom, and Canada have adopted explicit inflation targets.

Over roughly the same period, the Fed has achieved price stability in the U.S. without inflation targeting. Rather, it has evolved a less restrictive approach — an approach I call "flexible commitment." By "flexible commitment," I mean that our current policy's commitment to low inflation never precludes an active response to economic disturbances. The Fed's approach has implicitly targeted low inflation, though it does not embody a numerical inflation target. Moreover, it has been constructive in managing inflation expectations. Indeed, it has passed a crucial test of any good monetary policy: it has established the Fed's credibility for maintaining low inflation.

For over 20 years, the U.S. economy has performed quite well under this policy regime — dramatically better than it did in the high inflation environment of the 1970s. In fact, the Federal Reserve's current approach to monetary policy has done a good job of meeting the Fed's dual goals of price stability and full employment — goals set by law.

Nonetheless, the idea of creating a framework for explicit inflation targeting in the U.S. has recently become a topic of considerable discussion, in this forum and elsewhere. Some have spoken for it, some against it. The key question is: Could inflation targeting improve on the U.S. economy's performance going forward?

My position is that inflation targeting makes sense in principle for the U.S. It is the next logical step on the path the Fed has been traveling for the past two decades — a path toward greater transparency and clarity. If properly implemented, it would increase public confidence in the Fed's commitment to reasonable long-term price stability in the U.S. It would also strengthen monetary policy as a stabilization tool in a low-inflation environment. Moreover, while I do not think the U.S. faces a serious risk of deflation, inflation targeting would also help to avoid this risk should it arise.

At the same time, I recognize there are several important issues that must be worked out before an explicit inflation targeting regime could be established. Two are particularly important. One is calibrating the inflation target — that is, choosing the target price index, target inflation range, and target horizon — so as to reinforce, rather than undermine, the credibility of the Fed's commitment to price stability. The second is properly reconciling inflation targeting with the Fed's mandate to foster not only price stability, but also full employment.

As we shall see, these are related issues. We need to move carefully yet concretely on these two fronts, before we implement inflation targeting, if we are to realize the promise of better economic performance. With proper implementation, inflation targeting makes sense for the U.S. — in practice as well as in principle — and I would support it.

The Canadian Experience with Inflation Targeting

Our neighbors to the north speak well of explicit inflation targeting. In Canada, the economic boom at the end of the 1980s, together with an oil price shock and the introduction of their goods and services tax, led to fears that inflation would escalate. Against this backdrop, the Canadian government and the Bank of Canada agreed on explicit targets for inflation reduction in 1991.

The first formal targets aimed to bring inflation down to 2 percent by December 1995. Inflation declined more quickly than anticipated and was already closing in on its target by January 1992 — almost four years ahead of schedule. Since then, with year-over-year inflation almost always in the 1 to 3 percent target range, the policy has been widely regarded as a success. Moreover, the Bank of Canada and many academics contend that inflation targeting contributed to the country's improved economic performance.

Interestingly, the major lesson drawn from the Canadian experience with inflation targeting relates to credibility and inflation expectations. After inflation fell to 2 percent, expectations began to closely track the announced inflation target. With the low inflation target becoming increasingly credible, the nature of inflation in Canada began to change. During the 1990s, inflation became less responsive to short-run supply and demand excesses as well as to relative price shocks. Canada also enjoyed increased stability in its real economy. As compared to the preceding decade, the first decade of inflation targeting showed less volatility in both output growth and the unemployment rate. In short, inflation targeting worked as an automatic stabilizer in response to a whole range of economic disturbances.

The Canadian experience points to the potential benefits of explicit inflation targeting in the U.S. It suggests that institutionalizing an explicit target, by adding precision to inflation objectives and thus enhancing the transparency and accountability of central bank policy, can both stabilize prices and improve overall economic performance.

However, a U.S. shift to an inflation targeting regime would entail important implementation issues unique to our environment. We would be implementing inflation targeting after having achieved price stability and credibility. Other countries implement inflation targeting as a means to achieve those objectives. Moreover, inflation targeting in the U.S. must recognize the Fed's dual goals of price stability and maximum sustainable economic growth. Unlike the Federal Reserve, many inflation targeting central banks have a single mission of price stability.

These implementation issues are more than technical. They lie at the core of how such a system might effectively work in the U.S. context. Let me elaborate.

The Current U.S. Policy Framework

While the Fed has not adopted explicit inflation targeting, the policy strategy it has followed over the past 20 years generated many of the benefits inflation targeting offers. The Fed greatly increased its credibility for maintaining low and stable inflation and achieved an enviable record of output growth. It became more proactive in heading off inflationary pressures, even as it sought to ensure continued growth by responding aggressively to financial shocks and demand variations. At the same time, the Fed has become increasingly transparent — an important component of maintaining a credible commitment to low and stable inflation.

My colleague Fed Governor Ben Bernanke has described the current policy framework as "constrained discretion." But, as I mentioned, I prefer the term "flexible commitment." Under flexible commitment, the central bank has been free to adjust monetary policy to stabilize output and employment during short-term disturbances, while maintaining a strong commitment to keeping inflation under control.

Flexible commitment incorporates the idea that low and stable inflation is a key outcome of successful monetary policy. Yet, it has not offered an explicit inflation target, nor has it reported quantitatively on our successes or failures. Nonetheless, the Fed has achieved what is essentially price stability and also has stabilized inflation expectations.

The Philadelphia Fed's [Survey of Professional Forecasters](#) clearly confirms well-anchored long-term inflation expectations. In 1991, we began asking survey participants for their 10-year inflation expectations. The median forecast was that CPI inflation would average 4 percent over the next 10 years. As core inflation

declined, inflation expectations declined along with it. Declining inflation expectations are one reason we were able to achieve remarkable economic growth in the 1990s even as trend inflation slowed to its lowest level since the early 1960s. In 1999, our survey's 10-year CPI inflation expectation settled in at 2 1/2 percent. It has stayed there ever since. The Fed's aggressive actions to lower the federal funds rate in 2001 and 2002 did not elevate our survey participants' long-run inflation expectations. The recent dip in core inflation did not diminish them. I take this as a positive sign that the Fed's commitment to maintaining reasonable price stability is a credible one in the mind of the public.

This stabilization of expectations is crucially important. Indeed, recent history suggests the commitment to long-run price stability has enhanced the Fed's short-run flexibility to respond to shocks, as well as monetary policy's effectiveness in offsetting shocks. Because the Fed's aggressive actions to lower the federal funds rate in 2001 and 2002 did not elevate long-run inflation expectations, long-term interest rates came down with short-term interest rates. Clearly, the decline of both long- and short-term rates helped stabilize the economy.

But we have not always been successful. Recall the 1970s. Early in the decade, inflation began to rise, and the Fed failed to establish itself as a champion of price stability. The public's inflation expectations became unstable. Inflation and inflation expectations spiraled upward. Economic performance deteriorated. The Fed, concerned about the potential impact on employment and economic activity, initially avoided undertaking the strong policy actions necessary to break this destructive cycle. It was not until Fed Chairman Paul Volcker led the economy into disinflation in 1979-82 that the Fed began to regain credibility. Unfortunately, regaining credibility was costly. We suffered two recessions during those years.

Should We Move to Inflation Targeting Now?

Under both Chairman Volcker and Chairman Greenspan, the Fed worked hard to restore low and stable inflation. Their efforts proved successful in giving the Fed credibility as an inflation fighter. This was done using the strategy that I described as flexible commitment — one with an implicit objective of price stability rather than an explicit inflation target. In the face of well-anchored inflationary expectations, the question now is whether this is the time to adopt an explicit target. In an environment where we have already achieved credibility, should we institutionalize it?

I believe a properly specified inflation target can help ensure the continuation of our recent success. It can protect us from repeating the mistakes of our past without unduly constraining our ability to respond to short-run shocks. An explicit inflation target would place some check on Fed actions, helping to lock in the Fed's hard-won credibility. But we must recognize that inflation targeting in the U.S. might differ from the systems used abroad for two reasons: (1) the U.S. has already achieved price stability, and (2) the U.S. has the dual goals of price stability and full employment.

Nonetheless, we can learn from other countries' successful experience as well as from the academic literature on this subject.

The Academic Literature on Inflation Targeting and Credibility

One key lesson of the academic literature is that, in theory, inflation targeting is the best strategy for achieving both Fed policy objectives: low, stable inflation and full employment. Indeed, it is difficult to write down a macroeconomic model that does not lead to some sort of inflation targeting as the optimal monetary policy approach for achieving these two goals. Not surprising, given that more-than-transitory deviations from full employment will, with a lag, mean changing inflation.

Another idea emphasized by theorists is that of transparency. The Federal Open Market Committee (FOMC) recognizes that transparency plays an important role in achieving our policy objectives and goals. Any policy action can have very different effects, depending on what the private sector infers about the information that induced policymakers to act, about policymakers' objectives, and about their likely future actions. Accordingly, FOMC statements have been made more explicit and more direct. Votes are now released at the end of meetings, and forums such as this offer an opportunity to share thinking and explore nuances in policymakers' views.

Greater transparency in policymaking, along with a commitment to reasonable long-run price stability, has enhanced Fed credibility. As I mentioned earlier, credibility has given the Fed greater flexibility to respond to economic and financial shocks. The benefit of transparency and credibility is evident in the recent movement of the fed funds rate to a 40-year low. A 525-basis-point reduction in the funds rate with no damaging rise in inflationary expectations would have been unimaginable 20 years ago.

The positive results of this approach to monetary policy are evident. The documented decline in economic volatility in the mid-1980s occurred at the time the Fed conquered inflation, started achieving credibility for lower inflation, and brought inflationary expectations under control. While I do not believe better monetary policy is the entire story, it certainly played an important role.

If implemented carefully, explicit inflation targeting can reinforce the effectiveness of monetary policy. It would enhance our transparency, make it easier for the public to understand monetary policy, and further improve expectations dynamics.

We know that public perceptions about longer-run monetary policy impact the effectiveness of short-run policy actions. Specifically, the effectiveness of current monetary policy is influenced by expectations of future policy actions and expectations of long-term inflation. Inflation targeting would anchor these expectations more firmly, making price stability easier to achieve in the long term, and increasing the central bank's ability to stabilize output and employment in the short-term. Explicit inflation targeting in the U.S. might also deliver a more lucid explanation of policy, reduced uncertainty in financial markets, and increased popular support for the Fed. The interaction between credibility and policy actions is a key ingredient to implementing effective monetary policy. Proper implementation and design are therefore crucial if explicit targeting is to fulfill its promise.

Inflation Targeting as the Potential Next Step

Inflation targeting would be an evolutionary, rather than a revolutionary, step in the Fed's policy strategy. Against the background of "flexible commitment," as I have described it, the Fed could simply quantify what it means by price stability — a goal it has been pursuing for almost a generation and, most would agree, has now achieved. The Fed would then include in its regular testimony before Congress a report on its success or failure to achieve that numerical target. These steps would move the Fed farther along the path to greater transparency and accountability — a path along which it has already been moving.

But to say inflation targeting is an evolutionary step is not to say it is an easy one. Simply announcing a numerical target is not enough. A number of important implementation issues are essential to the success of inflation targeting in the U.S. Given our nation's already low and stable inflation rate, these issues are more substantive for us than they would be for a country experiencing high inflation. If we are to coax out additional gains from being explicit, we must pay careful attention to the design of the targeting framework.

An inflation target has to be calibrated in terms of three components: an inflation measure; a target range; and a time period over which average inflation is to fall within that range. Given the Fed's dual mandate to achieve price stability and full employment, we need to consider carefully several issues relevant to the choice of components for an inflation target.

The first issue is this: It is widely accepted that pursuing policies to stabilize output and employment in the face of temporary shocks can create greater short-run variance in inflation. So how does the Fed set an explicit range for an inflation target that is firm enough to impart credibility to its long-run price stability goal, yet flexible enough to accommodate its short-run stabilization goal?

Research suggests that central banks face a quantifiable short-run tradeoff between the variance in inflation and the variance in economic activity (output and employment). Thus, to properly and optimally implement inflation targeting, we must allow for some variability in inflation.

This means that inflation would equal its targeted value only on average. The question arises over what time frame should we measure that average? A second question is how much variability should we allow around the average? Of course, the answer will depend on the time frame. A two-year average can be targeted

more precisely than a quarterly average. Thus, implementation is likely to require a target range and time horizon pair.

The particular pair the FOMC selects must hinge on practical considerations, such as information lags and the underlying volatility of economic disturbances, along with our understanding of how the economy works. The target range/time horizon pair may be subject to change, but only infrequently. For explicit targeting to improve on our current procedure, the target horizon and target range must be set in a way that enhances both credibility and performance.

The second issue relevant to the implementation of inflation targeting is this: The target range/time horizon pair, to some extent, will influence the Fed's flexibility in reacting to shocks. In a perfect world of full information and complete credibility, everyone would be able to discern the Fed's optimal response and observe whether it has followed through. But this is not a perfect world. Maintaining credibility will require adherence to the target range/time horizon specification, which could impose some constraints on flexibility. Thus, a careful consideration of how best to set our targets is required to carry out our dual mandate.

Similarly, the occurrence of an improbably large shock could make hitting the target range technically impossible or extremely costly. In such cases attempting to maintain the targeting regime may not be socially desirable.

At times, there may be a temptation to re-contract by changing the components of the inflation target, or by temporarily relaxing its parameters. But such re-contracting would erode credibility and leave us with less effective monetary policy than we have achieved thus far. So I believe that careful design is important if explicit inflation targeting is to prove effective.

Finally, there is a third issue surrounding the implementation of inflation targeting by the Fed. Again, it emanates from the Fed's dual mandate to achieve price stability and full employment. This time it is the issue of symmetry. If the Fed sets an explicit inflation target, will the public then expect the Fed to establish explicit targets for other economic variables as well?

From an economist's point of view, this kind of symmetry would not be reasonable. Long-run inflation is under the control of the central bank. Potential GDP growth and the natural rate of unemployment are not. Further, the central bank can target only one variable and that variable is long-run inflation. While we believe that reasonable price stability, by which we mean low and stable inflation, is a necessary condition for achieving maximum sustainable growth and full employment, the central bank must take the long-run values of other variables as given.

Nonetheless, recognizing the Fed's capacity to conduct countercyclical monetary policy, we might argue that the Fed should establish near-term targets for real growth or unemployment. However, in the real world of daily ups and downs, it would be difficult, if not impossible, for the Fed to keep such variables within some meaningful range.

I believe that establishing dual numerical targets would be a mistake, even though the Fed has dual goals. Trying to establish numerical targets for both inflation and real growth or unemployment would almost surely end up undermining, rather than reinforcing, the Fed's capability to achieve price stability and conduct effective countercyclical policy. Accordingly, if inflation targeting were deemed likely to fuel calls for targeting other macroeconomic variables, I would not endorse it.

In short, I am in favor of inflation targeting in principle. However, I strongly believe we must address the implementation concerns I set forth before moving to an explicit inflation target.

Inflation Targeting vs. Price Path Targeting

Before closing, I want to discuss an important difference between two explicit price stabilization strategies currently being debated in the academic literature — inflation targeting and price path targeting. The two terms are often used interchangeably in the popular press, but the distinction between them is important.

Stated simply, inflation targeting targets the rate of inflation. Under an inflation targeting regime, if inflation rises temporarily above target, it must then be brought back down. However, the price level remains permanently above its targeted level. Price level targeting, by contrast, means that any deviations from the prescribed price level path must be offset in the future so as to return the price level to its target value. Thus, price level stability is more rigid and less forgiving than inflation targeting.

Recent research has suggested price path targeting may achieve better economic outcomes in an environment of zero-inflation or deflation. This, I presume, is one reason that Governor Bernanke recently suggested the Bank of Japan adopt a price-level target.

It has been argued that when inflation is very close to zero and demand is weak, price path targeting is more effective than inflation targeting in staving off deflation. Suppose inflation falls below target in the current period. Under inflation targeting, the price of goods and services today does not change relative to their expected future price. But under price path targeting, the lower price level today makes goods and services cheaper today relative to their expected future price. This encourages consumption and increases demand today. Also, firms — knowing that prices will be a lot higher later — would be less likely to cut prices. Both effects mitigate the dangers of deflation.

By design, price path targeting is much more constraining than inflation targeting. Deviations in the price level due to external shocks of any kind must be offset in order to achieve the target price level at some pre-determined point in the future. The costs of doing so are not considered. But in actuality, such a policy regime is likely to lead to more pressure for relaxing the parameters of the target than an inflation targeting regime. This alone would undermine stability of the policy regime and in the long run reduce its credibility. For this reason, I cannot advocate price path targeting for the U.S. at this time.

Nonetheless, research on price path targeting is still in its early stages. And we have no empirical evidence on how effective it would be in comparison to inflation targeting. Accordingly, I do find this research interesting and worth pursuing, at least at a theoretical level.

Conclusion

To conclude, I believe the FOMC should seriously consider inflation targeting. I would like to see work on implementation issues begin so that we may consolidate the gains made by flexible commitment and increase the efficacy of policy even further.

Some have suggested our recent success in achieving price stability speaks against implementing inflation targeting. The U.S. economy has been able to realize price stability and anchor inflation expectations under a policy of flexible commitment. Why change now?

I believe that we have reached a point where institutionalizing inflation targeting simply makes good sense from an economic perspective. In short, it is a reasonable next step in the evolution of U.S. monetary policy, and it would help secure full and lasting benefits from our current stable price environment. Evolving to explicit inflation targeting from our current implicit target has significant potential benefits, and the costs may be minimal if we can implement it in a constructive manner.

Clearly, proper implementation of inflation targeting is crucial to its success. That, in turn, requires more research and analysis. It also requires more public debate and discussion. The Money Marketeters are among the leaders in providing a forum for that public debate and discussion. Thank you for inviting me to participate. Now I'll be happy to take your questions.

References

Bernanke, Ben. Remarks at the Annual Washington Policy Conference on the National Association of Business Economists, Washington, D.C., March 25, 2003.

Bernanke, Ben S., Thomas Laubach, Frederic S. Mishkin, and Adam S. Posen. *Inflation Targeting: Lessons from the International Experience*. Princeton, NJ: Princeton University Press, 1999.

Broadbent, J. Alfred. "Monetary Policy in a Low Inflation Environment," Federal Reserve Bank of Richmond *Economic Quarterly* (Spring 2003), pp. 1-6.

Fischer, Stanley. Opening Remarks at the International Monetary Fund Institute's High-Level Seminar on Implementing Inflation Targets. Washington, D.C., March 20-21, 2000.

Freedman, Charles. "Inflation Targeting and the Economy: Lessons from Canada's First Decade," Presented at the Western Economic Association International's 75th Annual Conference, Vancouver, Canada, June 29-July 3, 2000.

Goodfriend, Marvin. "Monetary Policy Comes of Age: A 20th Century Odyssey," Federal Reserve Bank of Richmond *Economic Quarterly* (Winter 1997), pp. 1-22.

King, Mervyn. "The Inflation Target Ten Years On," Remarks to the London School of Economics, London, England, November 19, 2002.

King, Mervyn. "How Should Central Banks Reduce Inflation? - Conceptual Issues," Federal Reserve Bank of Kansas City *Economic Review* (December 1996), pp. 25-52.

Kohn, Donald L. Remarks at the National Bureau of Economic Research Conference on Inflation Targeting, Bal Harbour, Florida, January 25, 2003.

Meyer, Laurence H. "Inflation Targets and Inflation Targeting," Remarks at the University of California at San Diego Economics Roundtable. San Diego, California, July 17, 2001.

Mishkin, Frederic S. and Klaus Schmidt-Hebbel. "One Decade of Inflation Targeting in the World: What Do We Know and What Do We Need to Know?" NBER Working Paper No. 8397, 2001.

Orphanides, Athanasios, and John C. Williams. "Imperfect Knowledge, Inflation Expectations, and Monetary Policy," Working Papers in Applied Economic Theory 2002-04, Federal Reserve Bank of San Francisco (2002).

Orphanides, Athanasios. "Monetary Policy Rules, Macroeconomic Stability and Inflation: A View from the Trenches," Finance and Economics Discussion Series. Washington: Board of Governors of the Federal Reserve System, Division of Monetary Affairs (December 2001).

Siklos, Pierre L. "Inflation Target Design: Changing Inflation Performance and Persistence in Industrial Countries," Federal Reserve Bank of St. Louis *Review* (March/April 1999), pp. 47-58.