

# Chicago Fed Letter

## Reflections on monetary policy: Flexibility, transparency, and inflation

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Monetary policy has come a long way in the past quarter century. Price stability has always been part of the Federal Reserve's policy mandate. Should the Fed now adopt explicit numerical guidelines or targets for inflation?

Some argue that the best way for central banks to increase transparency and reduce uncertainty is by adopting explicit numerical guidelines for inflation. However, a number of questions remain.

We have gained important insights about the tactics of monetary policy as we have moved from an environment of moderate inflation to one of price stability. In particular, we have learned a good deal about the benefits of maintaining appropriate flexibility when implementing policy. We also have learned about the importance of communications and transparency in that implementation—notably their role in reducing the uncertainty that households and business owners face when making economic decisions, such as how much to spend, save, and invest, or what prices to charge for their products.<sup>1</sup>

Some argue that the best way for central banks to increase transparency and reduce this uncertainty is by adopting explicit numerical guidelines or targets for inflation.<sup>2</sup> However, a number of questions remain regarding the advantages and disadvantages of explicit numerical regimes.

### The context

It is pretty much accepted now by economists that monetary policy—meaning the Federal Reserve's ability to influence interest rates by raising or lowering the borrowing rate offered to banks—cannot permanently alter the unemployment rate or growth rate of the economy. Economic research indicates that attempts by monetary policy to push

unemployment below its natural, or equilibrium, rate eventually lead to pressures on resources and rising inflation and inflationary expectations. The unemployment rate will need to return to its equilibrium level (or the natural rate) in order to stabilize inflation.

Nonetheless, the Humphrey–Hawkins Act of 1978 explicitly mandated the Federal Reserve to achieve the dual targets of low inflation and maximum employment. When the law was enacted, the natural rate hypothesis was not as widely accepted as it is now. Furthermore, the Humphrey–Hawkins Act set the following targets for unemployment and inflation to be reached within five years of the act's passage: The unemployment rate would be below 3% for those older than 19, and it would be below 4% for those 16 years old and up; also, Consumer Price Index (CPI) inflation would be under 4%. The law further stated that by 1988 the inflation rate was to be zero.

Well, the unemployment rate did not drop to 4% by 1983, and the inflation rate was not down to zero by 1988. Fortunately, by this time we had learned enough about the inner workings of our economy to realize that monetary policy alone could neither achieve nor sustain such targets.

Now, no one on the Federal Reserve's Open Market Committee (the FOMC)<sup>3</sup>

is suggesting that numerical targets for unemployment should be reinstated. However, FOMC members have expressed a variety of views on numerical inflation measures. Some have suggested an explicit inflation guideline. But no one has proposed full-blown inflation targeting, with which we would commit to set policy with the sole aim of achieving a particular numerical inflation rate within some predetermined period.

### **What should the number be?**

There are many issues that need to be studied and questions to be answered about both the usefulness and the practical application of any numerical guideline for inflation. The first problem is deciding what the number should be. Former Federal Reserve Board Chairman Alan Greenspan offered the following non-explicit definition of price stability: when households and business owners are not taking inflation into account in their economic decisions. This is a useful definition, but it does not easily translate into a particular number for an inflation guideline.

Indeed, as recent history shows, deciding on a number for policy to aim for—let alone figuring out whether it represents price stability—has been the subject of a good deal of debate among policymakers and economists. There was little debate in the late 1980s. Inflation was around 4.5% and looked to be heading up—most observers viewed this trend as undesirable. However, there was a debate in 1994. Core CPI inflation then was a relatively low 2.8%, and according to the minutes and transcripts of the monthly FOMC meetings, inflation was heading higher than most FOMC participants wanted. But that view was not universal. Many economists thought an inflation rate of 3% was satisfactory and the Fed should not try to reduce it.<sup>4</sup> Today, given the relatively low inflation we have witnessed in recent years, it is doubtful many people would find 3% to be an acceptable point estimate for an inflation guideline.

Of course, it is possible for inflation to be too low. Importantly, because nominal interest rates cannot go below zero—

investors must be compensated in some way for the use of their money—extremely low inflation would mean the Fed could be limited in its ability to lower short-term real interest rates. Then, the Fed would have to turn to alternative and largely untested methods if it needed to respond to negative shocks to the economy.

### **Which measure should be used?**

A second problem is which particular measure of inflation to use. The Consumer Price Index, the Personal Consumption Expenditures Price Index, and the gross domestic product (GDP) price index are among the better known measures, but there are others.<sup>5</sup>

When inflation rates are high, it typically does not matter which index is selected for the guideline because all measures of inflation will be high and above the guideline. But when inflation is in the range of price stability, the choice of the index could matter. Indeed, seemingly small differences in the composition of consumption baskets and other measurement methods, in principle, mean that different indexes could send mixed signals to policymakers about the appropriate direction policy should take.

There are other issues with regard to the choice of the guideline index. According to the Fed, the CPI for personal consumption expenditures, excluding food and energy, is the best measure of underlying trends in consumer inflation. But does that mean it is also the best index to use as a guideline? After all, the total CPI is used in many private contracts, as well as in the inflation adjustments in many tax and transfer programs. So, should there be a guideline for the total CPI as well? Also, in a period of rapidly rising energy costs—such as the present—will the public have confidence in an inflation guideline that excludes energy prices? Would such a guideline achieve its claimed advantages of anchoring expectations and reducing risk premiums?

### **A single number versus a range**

Another issue to be considered is the best way to specify the numerical guideline to anchor inflation expectations.

Should it be a single hard number or should it be a range of inflation outcomes? And once that has been decided, what is the time frame for achieving and maintaining the numerical values? The problem is to come up with something practical, yet still informative.

The advantage of a single number is that it is precise, so it is clear how far inflation is from the guideline. However, actual inflation will inevitably fluctuate, and a range of acceptable inflation outcomes might make more sense. It would be more feasible to achieve inflation rates within a range. Of course, then there is the issue of how wide the range should be. A very wide range would be uninformative and, therefore, not a useful starting point.

With either a single number or a range, however, there are difficulties in communicating policy. In the first instance, the difficulty would be communicating what kinds of small deviations from the single number policymakers would be willing to ignore. In the second case, it would be communicating what kinds of deviations within the range would require a reaction by policymakers. We do not want to create the impression that there is necessarily a “zone of indifference” for inflation whenever it is in the guideline range. In either case, we would face the challenge of explaining the role of economic conditions in determining why sometimes the FOMC acts and other times it does not.

Furthermore, any policy prescription needs to include a period for evaluating the inflation outcome against the inflation guideline. Empirical evidence indicates that monetary policy does not affect the trajectory of inflation before one year, or more likely, two years. So, it would be impractical to specify too short of a time period to reach the guideline. In contrast, a very long period, say ten to 20 years, would be of dubious value to households and business owners in their financial planning. Many central banks that have inflation guidelines evaluate the process “over the medium term.” It is difficult to say precisely what this means. Is it three years, or five, or ten? And is it even a constant time period?

## Dual mandate

The time frame decision becomes even more complicated when one considers another important issue: the Fed's dual mandate. We are charged with fostering both price stability and maximum employment. We take the latter to mean employment associated with maximum sustainable growth. How does our economic growth mandate interact with a

elaboration before they can be of practical use to policymakers. Suppose, for the sake of argument, that the natural rate of unemployment and the level of potential real GDP were known. The key question in formulating explicit guidelines in the context of the dual mandate has two parts: "How fast should we plan to close the deviation in inflation from price stability?" and "How fast should

of the dual mandate, would this eventually lead to adding numerical unemployment guidelines that—like those in the Humphrey–Hawkins legislation—would prove to be incompatible with the natural rate hypothesis? Finally, how do we best explain flexible targeting to the public? It seems that whenever a number is mentioned, the news media focus entirely on the number and fail to explain all of the caveats.

There is not a pressing need to make a decision on inflation guidelines one way or the other. However, the topic is one of the most important issues currently on the table regarding the appropriate strategies for conducting monetary policy.

numerical guideline for inflation? As seen with the Humphrey–Hawkins Act, achieving explicit fixed guidelines for unemployment or real GDP growth is not workable in practice. Theoretically, the equilibrium, or natural, rate of unemployment and the trend in potential GDP growth change over time with demographics, productivity trends, and other factors. For example, a decline in the trend in productivity of the labor force would reduce the potential growth rate of GDP—and trying to boost output growth higher with accommodative policy would only generate inflationary pressures. In any event, monetary policy cannot alter the natural rate of unemployment, and any influence on potential output is at most secondary. As European policymakers are learning, reductions in high rates of structural unemployment require regulatory changes and increased competition.

But even if economists accept that it does not make sense to set explicit fixed numerical targets for real growth and unemployment, the dual mandate still puts equal weight on price stability and maximum employment.

In the academic literature on inflation targeting, a central bank that places substantial weight on both targets is referred to as a "flexible inflation targeter." As yet, in my opinion, the proposals for flexible inflation targeting require further

we close the deviation between the unemployment rate and the natural rate?"

The answer is complicated because it involves the interaction between the time frame for closing any gap between actual output and its maximum sustainable level and the time frame for bringing inflation in line with price stability. This is because policy dilemmas may arise. Suppose inflation is 1 percentage point above its guideline. If output is above potential, then there is no policy dilemma, because a contractionary policy aimed at both slowing output growth and reducing inflation would make progress on both objectives. But if output is below potential, there is a conflict in achieving both objectives. The inflation gap points to raising rates, while the output gap suggests lowering them. Flexibility means that the central bank must balance the two deviations; therefore, it would take longer to close either gap in the second case than in the first. And the larger the policy dilemma, the longer it would take to close the gaps.

This discussion highlights the serious, and unanswered, question of how to specify formally such variable time periods in a policy environment with explicit numerical guidelines. Even if this problem is solved, other issues then come into play. As a legal matter, would the Fed need approval from Congress to adopt flexible targeting? And in light

This brings me to a final question. Suppose a central bank successfully adopted a formal inflation guideline that respected a dual mandate by flexibly adjusting the time horizons for achieving both its guidelines. Would this policy look any different from current Fed policy? Some academics who study inflation-targeting central banks say no.<sup>6</sup> They say that, effectively, the Federal Reserve does engage in flexible inflation targeting. This is a bit puzzling, since there are no announced explicit guidelines. Still, financial markets and the public do not seem to be overly bothered by the lack of an explicit number for future inflationary expectations, and at the present time, inflationary expectations are well anchored. Our actual policy appears to

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have successfully obtained one of the most important benefits ascribed to a regime based on formal guidelines.

Then what is it that distinguishes current policy from simple discretionary ones that have the potential to produce large run-ups in inflation, like those in the 1970s? It is that central bankers now know that even without rigid rules or numerical guidelines, their actual approach to policy must be aimed at keeping inflation expectations anchored at a low level. They see this as a prerequisite

to achieving maximum sustainable growth over the long run.<sup>7</sup> Central bankers also know that anchoring inflationary expectations sometimes requires preemptive policy tightening before the actual inflation numbers start to rise—moves that might prove unpopular with the public, but are necessary to keep inflation in check.

### Conclusion

A lot of questions have been raised in this article concerning inflation guidelines and flexible targeting. There is not a

pressing need to make a decision on guidelines one way or the other. However, the topic is one of the most important issues currently on the table regarding the appropriate strategies for conducting monetary policy. There clearly are many issues regarding guidelines and targeting for researchers, business economists, and policymakers to study and debate. And this debate is definitely a healthy process. No matter what answers surface, we will learn more about the best ways to conduct monetary policy in our complicated and ever changing economy.

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<sup>1</sup> An expanded version of this article was published in the Federal Reserve Bank of Chicago's *2005 Annual Report*, available at [www.chicagofed.org/about\\_the\\_fed/annual\\_report.cfm](http://www.chicagofed.org/about_the_fed/annual_report.cfm). Charles Evans and Spencer Krane contributed to the development of these articles.

<sup>2</sup> Federal Reserve Bank of Chicago, 2006, "Selected central banks' inflation guidelines," *2005 Annual Report*, available at [www.chicagofed.org/about\\_the\\_fed/2005\\_annual\\_report\\_sidebar2.cfm](http://www.chicagofed.org/about_the_fed/2005_annual_report_sidebar2.cfm).

<sup>3</sup> The FOMC is responsible for setting the short-term borrowing rate for banks, thereby influencing the interest rates banks offer to their customers.

<sup>4</sup> See George A. Akerlof, William T. Dickens, and George L. Perry, 1996, "The macroeconomics of low inflation," *Brookings Papers on Economic Activity*, Vol. 1996, No. 1, pp. 1–76. Akerlof, Dickens, and Perry argue that even though real wages determine purchasing power, workers have an extra aversion to seeing real wages lowered through a reduction in nominal wages. The authors calibrate a model in which an inflation rate of 3% allows most realignments of real wages to occur without reducing nominal wages.

<sup>5</sup> Most central banks that have targets use a consumer or retail index, and this has some grounding in economic theory, since it is

ultimately the well-being of consumers that matters. For example, good business decisions among intermediate goods producers ultimately benefit consumers through their effect on final products and returns to investors who are also consumers.

<sup>6</sup> See, for example, Marvin Goodfriend, 2003, "Inflation targeting in the United States," National Bureau of Economic Research, working paper, No. 9981, September.

<sup>7</sup> Federal Reserve Bank of Chicago, 2006, "Center focuses on issues related to price stability," *2005 Annual Report*, available at [www.chicagofed.org/about\\_the\\_fed/2005\\_annual\\_report\\_sidebar3.cfm](http://www.chicagofed.org/about_the_fed/2005_annual_report_sidebar3.cfm).