Press commentary on the state of the U.S. economy has changed dramatically in recent weeks. Economic data for November and especially December have come in decidedly weaker than earlier in the year 2000. Analysts have been reducing their economic forecasts for 2001, and some have begun to worry about recession. Following Federal Reserve policy actions in the first week of January, many commentators have been discussing the role of monetary policy in stabilizing the economic situation.

My purpose today is to provide a perspective on the role of monetary policy in times such as these. I’ll talk about what monetary policy can and cannot do, and what expectations about policy are reasonable. I’ll begin by discussing monetary policy in the long run, and by emphasizing the importance of long-run considerations and how the strength of the long-run outlook affects the short-term outlook. I’ll emphasize the basic principle that, over the long-run, monetary policy is responsible for the rate of inflation but has very little bearing on the average rate of unemployment or the rate of economic growth. I’ll then talk about the short run and how short-run policy adjustments fit into the long-run policy stance. Finally, I will pay special attention to policy leads and lags. My purpose here is to clarify discussion about how the economy reacts to policy adjustments and how those economic responses might lag the policy adjustments.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis for their comments, but I retain full responsibility for errors.

**MONETARY POLICY IN THE LONG RUN**

Since coming to the St. Louis Fed in March of 1998, I have repeatedly emphasized in my speeches that the Federal Reserve is responsible for the average rate of inflation over the long run. The Fed has stated its inflation objective as maintaining a low and stable rate of inflation. The reason for emphasizing this goal is that the economy’s long-run economic performance in terms of employment growth and economic growth is maximized when the rate of inflation is low and stable. Moreover, no other economic policy authority can achieve the inflation outcome. Inflation is fundamentally caused by excessive creation of money, or liquidity more generally. Controlling the creation of money is the Fed’s responsibility, and exercising that power wisely is the main monetary policy function of the Federal Reserve System.

Recent years have provided ample evidence of a proposition that became mainstream in the economics profession 25 years ago—that it is not possible to reduce unemployment permanently by accepting higher inflation. The second half of the 1990s shows conclusively that the U.S. economy can enjoy a high rate of economic growth and declining unemployment without a rising rate of inflation. Indeed, I am convinced that the remarkable economic performance of the last half dozen years or so owes in part to a determined
Federal Reserve policy to keep inflation low and steady. Participants in markets of all kinds have developed confidence in that outcome, and that confidence has been important in unleashing the inherent vitality and inventiveness of the U.S. economy to achieve remarkable gains in productivity and employment.

**MONETARY POLICY IN THE SHORT RUN**

If the Fed’s long-run policy is to maintain low and stable inflation, and if that outcome has little or no influence on the average rate of unemployment and economic growth, what role is there for short-run monetary policy?

Policy in the long run is the sum of all the short-run policy adjustments. Clearly, then, any short-run policy adjustments for the purpose of short-run economic stabilization must be pursued in a manner that is consistent with long-run policy. For example, if temporary conditions call for extra monetary stimulus, then that extra stimulus must be withdrawn in future years so as not to create higher inflation in the long run. We could put the argument the other way around as well: if extra policy restraint is in order some particular year, that policy restraint must be undone in future years to remain on the correct long-term course.

Imagine looking at a chart of the unemployment rate spanning several decades. Let’s assume that there is a long-term equilibrium unemployment rate around which the actual unemployment rate fluctuates. The long–run equilibrium unemployment rate, which I will assume is $N$ percent of the labor force, may change gradually over time for a variety of reasons. However, I want to assume that the unemployment rate $N$ is not affected by monetary policy, except perhaps that $N$ can be a little lower when the inflation rate is low and steady. Incidentally, I choose the letter $N$ to refer to the long-run equilibrium rate of unemployment because Milton Friedman called this rate the “natural rate” of unemployment in his seminal paper on this subject.

The actual unemployment rate month by month fluctuates around $N$ percent. The fluctuations around $N$ percent may be quite persistent—the unemployment rate might remain above or below $N$ percent for months or even many quarters at a time.

Economic historians studying monetary policy in the United States and other countries have argued—I think convincingly—that central banks have from time to time made serious mistakes that increased rather than reduced fluctuations in the unemployment rate. Certainly, the first obligation of a central bank is to do no harm. Over the last 40 years or so, advances in economists’ understanding of macroeconomics and monetary policy have led to improvements in monetary policy. The Federal Reserve has been able to avoid repeating past mistakes and has, I believe, not added to employment instability since inflation came down in the early 1980s.

**Question:** Can monetary policy do more than simply avoid contributing to employment instability? That is, can the Fed make a positive contribution to keeping the fluctuations in the unemployment rate small, thereby keeping the actual unemployment rate close to $N$ percent? I think the answer is yes, at least to some degree.

Adjusting monetary policy to limit fluctuations in the unemployment rate is not easy. I do not count myself in the group of economists who believe that there is a reliable relationship between the inflation rate, or the change in the inflation rate, and the unemployment gap, where the gap is defined as the actual rate of unemployment less the estimated value of the natural rate of unemployment. One very serious problem is that no one has a reliable estimate of the numerical value of the natural rate or how it may be changing. I do not believe that the Federal Reserve should think of the unemployment rate as a device to control inflation because I do not believe that there is a reliable relationship between inflation and the estimated unemployment gap. Although all of us want the actual unemployment rate to settle at as low a level as possible, we must recognize that sometimes—not invariably, but sometimes—actions necessary to control the rate of
inflation may have an adverse short-run effect on unemployment. Recognition of that fact is nothing more than a restatement of the well-established proposition that the central bank cannot lower the average rate of unemployment by accepting more inflation. We know from painful experience in the 1970s that an effort to pursue expansionary monetary policy to hold down unemployment is doomed to failure if that policy yields rising inflation.

The way I view monetary policy is that I focus above all on inflation and then feel my way gingerly on the unemployment front. What I mean by “feel my way gingerly” is that through extensive experience I have developed a sense of when business conditions are moving quickly in one direction or another. A year ago I had the sense that demand pressures were simply too strong to be sustained over the indefinite future without generating substantial risk of higher inflation. Over the last couple of months, demand pressures, as measured by a wide variety of indicators amply commented on in the press, have been substantially less robust. This is not a matter of hard science by any means; in forming my sense of current business conditions, I rely on formal statistics, business contacts, press reports about the state of business, and expert staff input. The best analogy I can offer is that when driving my car I have a sense of the appropriate speed. That speed depends upon the nature of the road, my familiarity with it, traffic conditions, weather, the angle of the sun, the type of car I am driving, and so forth. At any given time, different skilled drivers can have a different sense of the safe and reasonable speed, and both can be correct. When it comes to monetary policy, those of us directly responsible for policy decisions sit around the table and offer our observations and judgments. I know that the policy discussions at meetings of the Federal Open Market Committee do help me to become better informed and do affect my views.

Different views, or views with different nuances, are perfectly natural given the state of knowledge. At the same time, it is clear that everyone in this business will be surprised from time to time by the actual outcome. I think of this process as being one of maintaining a firm conviction about long-run policy—that is, the critical importance of achieving low and steady inflation on the average—and being as nimble as possible in making short-run adjustments.

My discussion so far has ignored a key part of this process—the interaction of Fed policy and market expectations. The Fed’s main policy instrument is the intended level for the federal funds rate—the interest rate on overnight bank loans of reserves on deposit at Federal Reserve Banks. The Federal Reserve does not have any direct influence on long-term interest rates such as that on home mortgages. The federal funds rate affects the mortgage rate entirely through effects on market expectations. A 1-week interest rate reflects expectations about the overnight federal funds rate for the next week; the 1-month rate reflects expectations about the next four 1-week rates; the 1-year rate reflects expectations about the next 12 one-month rates and a 30-year bond rate reflects expectations about the next 30 1-year rates. All of these expectations are formed in the marketplace. These interest rate expectations reflect the interplay of market expectations about future economic developments and future Federal Reserve policy adjustments, which of course interact.

The market clearly moves interest rates in anticipation of future developments. This fact allows me to be much more precise about what I mean when I say that the Federal Reserve needs to be prepared to act nimbly. The Fed does not have to be, and should not be, hyperactive. Given that the market understands well how this process works, the Federal Reserve often can hold a steady federal funds rate target while waiting for the situation to clarify. Market interest rates fluctuate readily up and down as new information arrives. This point is nicely illustrated by experience over the last year.

Let me illustrate this process by referring to the 10-year Treasury bond yield. In January of last year that rate reached a monthly peak of 6.7 percent. Meanwhile, the Fed was raising the intended federal funds rate, which reached a peak of 6.5 percent in May. Over the second half
of last year, some combination of lower credit demands and the market’s interpretation of the flow of new information brought the 10-year bond rate down in irregular fashion. By August, that rate was down to 5.8 percent and by December it was down to 5.2 percent. Earlier this month the FOMC decided to reduce the intended rate from 6.5 to 6.0 percent. However, as can be seen from the data on the 10-year bond rate I’ve just discussed, financial conditions eased well before the FOMC changed policy. Examination of the Aaa corporate bond rate yields the same conclusion. Using monthly average data, that rate reached a peak of 8.0 percent in May of last year and by December was down to 7.2 percent.

The fact that market interest rates moved ahead of the FOMC does not mean that the Fed got behind. In fact, in recent years, the market has typically moved ahead of the Fed. The correct interpretation, in my view, is that market participants have great confidence in and understanding of Federal Reserve policy. Because the markets understand the Fed, the Fed can afford to hold a steady setting on the intended federal funds rate until the evidence becomes clear that a policy adjustment is appropriate.

Let me now recap this argument, pulling its various threads together. First, the Federal Reserve is committed to a long-term policy that maintains a low and stable rate of inflation. Second, the Federal Reserve can, in my view, make short-run policy adjustments as appropriate to reduce fluctuations in employment and economic activity around their long-run trends, which are determined by non-monetary factors. The market understands the Fed’s role and can typically anticipate Fed policy adjustments.

My argument that the Fed can cushion short-run fluctuations in employment and economic activity most definitely does not imply that we can eliminate all such fluctuations. Along with private business analysts, we are often taken by surprise by current economic developments. We are no better than anyone else at forecasting the unforecastable.

Let me mention one other aspect of this situation. Let’s suppose that the Federal Reserve were able to pursue monetary policy by some mechanism other than by setting the intended level of the federal funds rate. That is, suppose all interest rates, including the federal funds rate, were free to fluctuate freely in the market. Assume also that the Fed were successful in maintaining low and stable inflation on average and in offsetting some part of short-run economic disturbances, though not all. Then, we would observe interest rates fluctuating up and down as pressures in the financial markets rose and fell. These interest rate fluctuations would not be a direct consequence of Federal Reserve policy but of the workings of the market economy. Although the Fed in fact sets the intended rate on federal funds, one way of looking at what the Fed does is that it tries more or less to replicate the interest rate fluctuations that would occur in the policy model just described. That is, interest rates would need to fluctuate in response to the ebbs and flows of credit market conditions as necessary to maintain the economy’s equilibrium close to full employment and with an ongoing inflation rate that is low and steady. Although the Fed in fact sets the intended federal funds rate, it has relatively little freedom year-by-year as to what level to set if it wants to be successful in achieving its policy objectives.

**POLICY LEADS AND LAGS**

I’ve emphasized the broad outlines of how policy works and now want to say just a few words about a topic much in the news recently. Many observers have expressed concern over weakness in some of the economic statistics. At the same time, they often remark that a Federal Reserve policy response is unlikely to have much effect for six to nine months or perhaps longer. The argument is, implicitly, that the Fed is powerless to do much to stem economic weakness in the near term.

The conclusion is in one respect correct but the reason has nothing to do with the asserted policy lags. I’ve already emphasized that interest rates fell substantially over the second half of
last year, anticipating Federal Reserve action by many months. The market could not predict the timing of the recent Fed policy easing, but it did predict the fact of easing at some point. If interest rates decline in anticipation of Fed actions, then the policy lag should be measured from the decline in market interest rates and not from the date of Fed action anticipated by market interest rates. In May of last year, at the time the Fed last tightened policy, the 10-year bond rate was 6.4 percent. Using monthly average data, the 10-year bond rate fell every month thereafter. Some of the same observers contending that the economy’s response will lag Fed action note that housing has held up pretty well in recent months. Surely the reason in part is that mortgage rates have been coming down, along with other rates. Last year, the 30-year conventional mortgage rate fell from 8.5 percent in May to 7.4 percent in December.

These observations make clear that the question of the length of the lag from the Fed’s policy action earlier this month is not well defined, because the market gradually eased rates last year in anticipation of eventual Fed action. The markets and the Fed have a common interest in understanding how the economy is evolving. Whether the Fed can ensure that the economy will not fall into a recession this year is really an issue of whether the markets and the Fed together can anticipate, and offset, developments that could lead to a recession. There is no guarantee as to the outcome.

My personal economic forecast is completely consistent with the mainstream of private forecasters, for I know that I have no comparative advantage in producing a superior forecast. Neither the Federal Reserve nor private business firms can foresee future developments with great accuracy. What we can do is to respond sensibly to current developments, making sure that we keep in mind the long-term policy goals and not overreact to short-run disturbances on which we can have little effect.

My bottom line on the outlook for the U.S. economy this year matches that of private forecasters. The best guess of private forecasters at this time is that the economy will continue to grow, but more slowly than last year. There is a range of possible outcomes around that best guess; that range does include a recession outcome, although private economic forecasters do not view that outcome as highly likely at this time. The economy also has the potential to perform better than the best guess.

Your reaction to my fearless forecast may be, "so, what else is new?" The answer is that the situation today is not unusual, except for those with memories that go back only five years or so. If we consider again the title of my talk today, "Monetary Policy in Uncertain Times," my message is that these times seem much more uncertain than they really are. Yes, a recession is in the realm of possibility, but it is not a best guess at this time. Nothing has happened to change the appropriate assessment of the economy’s long-run potential. The fact that excessively optimistic long-run growth forecasts—"excessively exuberant" is the phrase I’m searching for but dare not use!—have disappeared speaks to those forecasters and not to the economy’s growth potential. Growth prospects remain excellent. The inflation outlook for the next couple of years and long-term inflation expectations remain low.

In sum, the near-term outlook has changed—but it is always changing in some respect or other—and the long-run fundamentals are sound.