Monetary Policy Communications and Forward Guidance

Charles L. Evans
President and Chief Executive Officer
Federal Reserve Bank of Chicago

International Research Forum on Monetary Policy
Seventh Conference
Frankfurt, Germany
March 16, 2012

FEDERAL RESERVE BANK OF CHICAGO

The views expressed today are my own and not necessarily
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Introduction
Thank you, Chris, for that generous introduction. And thanks to Matt, Günter, Chris and Thomas for organizing such a great conference. I always enjoy being able to step back into the research world for a while—as things are going these days, it falls in the category of rest and relaxation! But another reason I enjoy doing so is that I, like most modern central bankers around the world, feel strongly about guiding policy with good theoretical and empirical economics. As you will see by my comments tonight, these linkages have been especially helpful in dealing with the difficult circumstances policymakers find themselves in today. Of course, these views will be my own, and not necessarily those of the Federal Open Market Committee (FOMC) or the Federal Reserve System.

I left graduate school in the late 1980s. U.S. monetary policy rates were around 9 percent. At the time, this restrictive stance was aimed at lowering inflation, which was running about 4 percent, though there was active public debate about how hard policy should press to bring inflation down. It never crossed my mind back then that one day I would be working on the problem of how to provide monetary accommodation in an economy with massive unemployment, very low inflation (perhaps even too low) and a policy rate stuck at the zero lower bound. With the exception of scholars of the Great Depression, back in the 1980s today's policy challenges were not on anyone's radar screen.

Of course, that changed with the developments in Japan during the 1990s. More macroeconomists began thinking about liquidity traps and the monetary policy tools to help escape from them. These analyses gained momentum following Paul Krugman's Brookings paper in 1998.[1] They focused both on the use of the central bank's balance sheet to provide accommodation and on communication about policy goals and forward guidance about the path for policy instruments. Much of this latter work was done within the New Keynesian paradigm, since communications are central to the policy transmission mechanism in those models.[2] For obvious reasons, such research has come back into vogue today.

The nonstandard policies emphasized by these lines of research have been important elements in the Federal Reserve's toolkit over the past four years. The Federal Reserve engaged in two waves of large-scale asset purchases (March 2009 and November 2010), and, more recently, extended the maturity of the assets on our books (September 2011). In August 2011, we added a particular type of forward guidance to our policy, first saying we would likely keep rates low until mid-2013 and then, in January, indicating that sub-par economic performance would likely warrant exceptionally low rates until at least late 2014. Working to complement these efforts and to improve FOMC communications more generally, we also added two major communications initiatives: A statement of our monetary goals and long-run strategies, and publication of FOMC participants' projections for the federal funds rate.

I have strongly supported each of these developments, believing that they improved transparency and also provided welcome further monetary accommodation for the U.S.

[1] Krugman (1998).

[2] See, for example, Bernanke, Reinhart and Sack (2004) and Eggertsson and Woodford (2003).

economy. However, as I have been talking about in public for some time, I think there are additional tools we could use to deliver more effective policy accommodation. In particular, I would like to see our forward guidance take a different form—one that explicitly ties liftoff in the funds rate to observable economic outcomes (You can think of this as a Ulysses-type forward guidance: We tie ourselves to the mast to avoid the siren calls of premature tightening.) As I will talk about shortly, I believe such policy could provide more clarity about our attitudes toward providing monetary accommodation—and would be more in line with a structure I would have preferred to have seen in our August 2011 and January 2012 actions. This policy also can be structured in a way that would represent a balanced risk-management approach to achieving the dual goals of maximum employment and stable prices that the United States Congress has mandated to the Federal Reserve.

Communications Enhancements

First, though, I'd like to discuss the Fed's latest initiatives to enhance communications. As an accountable central bank in a democratic society, the Federal Reserve has an obligation to clearly articulate what it is trying to achieve with monetary policy. I believe that our latest communications efforts are an important step in further increasing such accountability to the public, as they reaffirm our commitment to both legs of the dual mandate and describe the ways in which we will seek to achieve those objectives.

The framework statement

Let's start with the framework statement of our policy goals and long-run strategy. The framework clarifies how the FOMC interprets our statutory responsibilities for facilitating maximum employment and price stability in terms of measurable and achievable economic goals that we aim for over the longer run. We say that the Committee sees a rate of inflation of 2 percent over the long run as being consistent with the price stability leg. There are two important ingredients: Our explicit inflation objective is 2 percent, and this is to be achieved over the long run. As recently as 2005, many FOMC participants preferred to describe a range of inflation outcomes as being consistent with our inflation mandate instead of stating it as a single number.[3] Our current statement narrows our objective to 2 percent. It also sees this as an average that we aim to achieve over the long run, in recognition of the obvious realism that inflation may deviate from this goal from time to time owing to economic challenges, conflicts in achieving the dual mandate objectives and difficulties in the policy transmission channels.

The statement also notes that maximum employment is largely determined by nonmonetary factors, which are difficult to measure and may change over time. Hence, we cannot and do not specify a fixed, time-invariant goal for it. But FOMC participants can provide their current assessments of goal variables related to the achievement of maximum employment. We do so using the central tendency of FOMC participants' projections for the rate that unemployment would converge to in the absence of further shocks to the economy. As of January 2012, this rate is 5-1/4 to 6 percent.

The statement also indicates that policy will seek to mitigate deviations in inflation and unemployment from these longer-run goals, and addresses the weighting of relevant costs and benefits when trying to close these gaps. Namely, if the policy prescriptions for achieving the inflation and unemployment goals are in conflict, we will take a balanced approach promoting the return to each, taking into account the size of the deviations and the relative speeds at which convergence can be expected. As we all know in this audience, there is an enormous literature related to characterizing the monetary policy loss function for a central bank with a

[3] See FOMC (2005).

dual mandate—such as work by John Taylor, Lars Svensson and Michael Woodford.[4] For me, our Federal Reserve dual mandate responsibilities are well captured by a quadratic loss function that equally weights squared deviations of inflation and unemployment from their period goal values. In the U.S. today, that would be 2 percent for inflation and 5-1/4 to 6 percent for unemployment given today's structural challenges in the labor market.[5]

Just about every major central bank around the world publishes something akin to such a framework statement. In one way, the Federal Reserve is different because, unlike other countries, we have a dual mandate, and so our framework explicitly addresses goals for both inflation and the real side of the economy. But just about every bank with a single price stability mandate also says that it will avoid undue disruptions to the real side of the economy when pursing its inflation goal. Indeed, some are quite clear about following a flexible inflation targeting strategy.

Policy projections

What about the policy projections? The forecasts for growth, the unemployment rate, and inflation that FOMC participants have been submitting since 1979 have always been conditioned on each participant's views of the future path of policy most likely to foster outcomes consistent with our dual mandate responsibilities—what we refer to as the appropriate path for policy. As of last January, our quarterly *Summary of Economic Projections* (SEP) now include the projected paths for the federal funds rate and qualitative information about the balance sheet that make up these views.

I believe this move significantly enhances policy accountability. For example, suppose inflation were running higher than we would like, and the economic projections in the SEP showed it coming down over the next couple of years. In the absence of policy projections, the public would not know whether the FOMC thought inflation would simply come down on its own or whether it thought that a monetary tightening would be required to reduce inflationary pressures. The inclusion of participants' policy projections will help communicate such judgments.

Furthermore, households and businesses will be able to make better informed decisions if they have a clearer notion of future policy rates; the potential for reduced uncertainty could also lower the risk premium embedded in longer-term interest rates. Now, clearly, our forecasts of what rates are going to be three years from now will often be wrong—and sometimes by a good deal. Some say this means our projections are worthless, or, even worse, will cause people to underweight interest rate risk in making economic decisions. I disagree. The accuracy of the early forecasts we write down is not so important as how the public can observe the forecasts change over time. As the economy is hit by shocks or the data come in contrary to expectations, we will change our forecasts for both the economic variables and the policy rate. As we do, households and businesses will be able to learn more about the monetary policy reaction function. And it is this knowledge that will help them make better informed decisions.

Another criticism we heard on the day the projections were published was that they seemed to be inconsistent with the FOMC policy statement released a couple of hours earlier. The statement indicated that the Committee thought economic conditions are likely to warrant exceptionally low levels for the federal funds rate at least through late 2014, but six of the 17 policy projections showed that the funds rate would be 1-1/2 percent or higher at the end of that

[4] Taylor (1979), Svensson (1997) and Woodford (2003).

[5] Note a weight of 1 on the unemployment rate is equivalent to a weight of about ¼ on the output gap. Of course, policymakers could debate the relative weights to put on inflation and the real-side goal variable in their loss function.

year. Well, by the next day, the markets had figured it out; the projections are made by all FOMC participants, while the statement reflects the policy views agreed upon at the meeting by the voting members of the Committee. We all come into the meeting with our projections, but we then do have a real meeting: All of the participants exchange ideas and argue points of views, and then the voters on the Committee come to a consensus and make a collective policy decision. The information regarding the federal funds rate in the SEP does not substitute for this formal decision of the voting members of the FOMC.

That said, the diversity of views is a fact of life. Policymakers may well have differing judgments on the appropriate stance of monetary policy in the particular economic circumstances of the moment. These communications initiatives cannot eliminate these differences of opinion. But they further discipline the parameters of our discussions, clarify the judgments that underlie our policy decisions and enhance transparency and the public's ability to evaluate current monetary policy with alternative approaches.

Forward Guidance and Policy Commitment in an Explicit State-Contingent Policy
The macroeconomic environment
The new policy tools can also complement the kinds of accommodative policies I have been advocating for some time. The U.S. is now more than two and a half years into its modest and uneven recovery from the Great Recession. Real gross domestic product growth has averaged just 2-1/2 percent. The unemployment rate is 8-1/4 percent—well above the rate anyone on the FOMC sees as being consistent with our longer-run goal; in my view, this is a substantially higher rate than one might attribute to supply-side factors, such as extended unemployment insurance and a heightened degree of mismatch in labor markets. Realistically, this is a 2-1/4 to 3 percentage point deviation from our current maximum employment objective. Because this occurred with nominal interest rates stuck at the zero lower bound since December 2008, I believe it's hard to say that we are not in a liquidity trap. Recently, the U.S. data have been more encouraging, with the labor market improving and private demand showing a little more traction. Without a doubt, these are welcome developments. But even the more optimistic forecasts see output increasing only moderately above its potential growth rates; no one has an expectation for a surge in activity that would quickly close resource gaps.

At the same time, the outlook for inflation is subdued, with most FOMC participants' forecasts for increases in total personal consumption expenditures prices averaging roughly between 1-1/2 and 2 percent over the next three years. Furthermore, private sector long-run inflation expectations are quite well anchored.

As we know from the work of Michael Woodford and Gauti Eggertsson, Ivan Werning, Paul Krugman[6] and others, the optimal policy response to a liquidity trap may involve a commitment to keep policy rates quite low for a period of time after the real equilibrium rate has risen enough so that the zero lower bound is no longer binding. This is a strong form of forward guidance akin to Ulysses tying himself to the mast to avoid changing his mind upon hearing the siren's seductive music. Of course, in the real world, we cannot observe the equilibrium real rate, and so we cannot directly implement such a policy. We can capture the spirit of these recommendations, however, by committing to keep policy rates exceptionally low until certain observable economic triggers are met that would be consistent with the economy being well past the liquidity trap.

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[6] Eggertsson and Woodford (2003), Werning (2011) and Krugman (1998).

At the same time, some worry that the output gap and overall resource slack is small. I don't subscribe to this view. But what if it were true? What kind of new information might we learn that would change our views about the magnitude of resource slack? Well, in the 1970s, we learned the hard way that underestimating resource slack and running full out accommodative monetary policies will lead to unacceptably high inflation. So, in designing a policy to close resource gaps, I am going to take a careful look at the evolution of inflation and inflationary expectations to tell me if I am wrong about my assessment of the real-side shortfalls we need to fill.

An explicit state-contingent policy

Let me outline how this approach might work in practice. The Fed could sharpen its forward guidance by pledging to keep policy rates near zero until one of two events occurs. The first event would be if the unemployment rate moved below a 7 percent threshold. Reductions in the unemployment rate below this level would represent good progress toward the natural rate of unemployment; depending upon the state of inflation expectations, it might be time to lessen policy accommodation.[7]

The second event that would commit us to raise rates would be if inflation rises above a particular threshold that is clearly unacceptable. This trigger would be a safeguard against the possibility that our assessments of economic conditions and resource slack are wrong and the natural rate of unemployment is higher than 7 percent. If this were so, our experience from the 1970s suggests that a continuation of the low-rate policy would generate a further unexpected increase in inflation; by adjusting policy according to this trigger, the Fed would begin exiting from what would now evidently be excessive policy accommodation. We would not have the desired reductions in unemployment, but then again, there wouldn't be anything that monetary policy could do about it.

I would argue that this inflation-safeguard threshold needs to be well above our current 2 percent inflation objective. This is consistent with the theoretical work showing that extraction from a liquidity trap requires the central bank, if necessary, to allow inflation to run higher than its target over the medium term. My preferred inflation threshold is a forecast of 3 percent over the medium term. For a central bank like the Federal Reserve that has a statutory dual mandate, this seems like a risk that we should be willing to accept. We would suffer some net policy loss if the gains in employment did not occur. But we certainly have experienced inflation rates near 3 percent in the recent past and have weathered them well. Such an experience would not be anything close to the debilitating higher inflation rates we saw in the 1970s or 1980s. And 3 percent isn't high enough to unhinge long-run inflation expectations. Indeed, I think our new framework commitment to a 2 percent long-run inflation goal would help anchor inflation expectations if we undertook this policy strategy.

Let me also emphasize that under this policy proposal, inflation reaching 3 percent is only a risk—and not a certainty. Indeed, simulations of standard models suggest that inflation is likely to remain below 3 percent even under a policy of extended monetary accommodation.

Why I prefer the state-contingent policy to calendar-date guidance

I voted for the mid-2013 guidance we put forward last August and supported the extension to late 2014 made in January because I felt these actions would provide a greater degree of

[7] Note that if inflation had fallen to 1 percent (below our 2 percent objective) while unemployment improved to 7 percent, it would be against both our employment and price stability objectives to tighten at that point.

accommodation than markets were pricing in at the time. But I think a 7/3 threshold policy would more clearly convey a commitment to the degree of accommodation I think we need. There has been much talk about the economic conditionality underlying our calendar-year guidance—the phrase in our FOMC statement that says the Committee "anticipates that economic conditions … are likely to warrant" that precedes the late 2014 forward-guidance date. But those conditions have not been spelled out. Suppose as we move through next year that our projections for 2014 have an unemployment rate above 7 percent and inflation close to 2 percent. Some might argue then that the economic conditionality in the statement has been met and we should begin to remove accommodation. To me, in the absence of some new compelling evidence about the natural rate of unemployment or an unhinging of inflation expectations, this would represent an unwarranted tightening of policy. (Indeed, the mere chance that this may occur may be diminishing the degree of accommodation in place today.) The economic thresholds I am proposing put a higher and more predictable standard on the removal of accommodation.

Conclusion

I would like to conclude by noting that I have undoubtedly generated some discomfort in the room tonight by saying that even with the large degree of accommodation already in place, monetary policy can and should take additional steps to facilitate a more robust economic expansion.

Central bankers naturally worry about such statements. We think back to the 1970s, when our failure to appreciate the changing structure of the economy led to over-stimulative policy and eventually to stagflation. It's in our DNA to have these concerns; and they remind us of the need to continually do our best to calibrate important markers such as the natural rate of unemployment, keep close tabs on inflation expectations and have our eyes open for early warning signs of financial instability.

But I believe a greater risk today is that we buy too quickly into thinking that the equilibrium rate of unemployment has jumped 2 or 3 percentage points or that long-run inflation expectations have become so fragile that they are on the verge of spiking well above 2 percent. I just don't see the evidence out there supporting this view. But if we do buy into it, then we'll end up following overly restrictive policies that could unnecessarily risk condemning the U.S. economy to a lost decade—or even more. And the costs of taking this route would be unacceptable.

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