## The Fed's Dual Mandate Responsibilities: Maintaining Credibility during a Time of Immense Economic Challenges

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The views expressed today are my own and not necessarily Those of the Federal Reserve System or the FOMC.

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#### The Enormity of the Problem

In the summer of 2009, the U.S. economy began to emerge from its deepest recession since the 1930s. But today, more than two years later, conditions still aren't much different from an economy actually in recession. Gross domestic product (GDP) growth was barely positive in the first half of 2011. The unemployment rate is 9.1 percent, much higher than anything we had experienced for decades before the recession. And job gains over the past several months have been barely enough to keep pace with the natural growth in the labor force, so we've made virtually no progress in closing the "jobs gap."

With unemployment having lingered for so long at rates around 9 percent, it is perhaps natural that some would begin to think that nothing more can be done to improve upon this situation. However, I don't agree. Before seriously contemplating doing nothing, it is important to realize just how enormous this economic problem really is. To put this in perspective, consider that prior to the recession, most analysts thought the long-run trend growth rate of GDP was about 2-1/2 percent per year. Given the sharp drop in output during the recession and lackluster early recovery, GDP is currently below its potential by nearly 7 percent, or \$1 trillion dollars. Just prior to the recession, the unemployment rate averaged between 4-1/2 and 5 percent. It peaked at 10.1 percent during the recession and, as I just noted, is still 9.1 percent today. In terms of jobs, payroll employment is about 6-1/2 million below its pre-recession level. These are massive shortfalls in output and employment.

It does not appear as if these gaps are going to be reduced significantly any time soon. Real GDP growth has been anemic so far this year. Gains in employment have slowed markedly. Even though credit conditions overall have been improving, many households and small businesses still seem to be having trouble getting credit. In addition, the repair process in residential real estate markets is painstakingly slow, and households are still in the process of paring debt and adapting to the huge losses in real estate and financial wealth that they experienced during the recession.

I largely agree with economists such as Paul Krugman, Mike Woodford and others who see the economy as being in a liquidity trap: Short-term nominal interest rates are stuck near zero, even while desired saving still exceeds desired investment. This situation is the natural result of the abundance of caution exercised by many households and businesses that still worry that they have inadequate buffers of assets to cushion

<sup>1</sup> Real GDP fell about 5 percent during the recession, and growth has averaged about a 2-1/2 percent annual rate so far in the recovery. (The number in the text was based on the difference between actual and potential real GDP as calculated by the Congressional Budget Office through 2011:Q2.)

against unexpected shocks. Such caution holds back spending below the levels of our productive capacity. For example, I regularly hear from business contacts that they do not want to risk hiring new workers until they actually see an uptick in demand for their products. Most businesses do not appear to be cutting back further at the moment, but they would rather sit on cash than take the risk of further expansion.

Considering the substantial lost wealth that came with the Second Great Contraction and the enormous uncertainty over the recovery today, it is understandable why households, businesses and market participants are exceedingly cautious. We seem to be following the tendency, documented by Carmen Reinhart and Kenneth Rogoff, that recoveries from economic downturns caused by large financial crises usually are painfully slow. Accordingly, it is of the utmost importance for monetary policymakers to respond appropriately.

Recently, many critics of the Fed's actions have raised concerns about the credibility of Fed policy. Credibility — that is, the general belief that the Fed does what it can to achieve its mandated policy objectives — is certainly a critical issue. Defining "credibility" sounds easy, but there are several aspects to credibility. For example, at any point in time, the Federal Reserve will likely need to contemplate a series of current and future policy actions in order to effectively influence the trajectory of the economy and better achieve the goals of monetary policy. In order for households, businesses and financial markets to conduct business in accordance with the Fed's planning, the public must believe that the Fed will carry out these future actions as expected to achieve its well-understood objectives. Credibility requires a clear public understanding of the Fed's policy objectives, as well as a belief by the public that the Fed's actions are consistent with achieving these objectives. Lower levels of credibility would be associated with erratic and misunderstood policy actions that seemed inconsistent with the stated objectives of monetary policy.

At this point, it would be useful to describe the typical way in which monetary policy is set by central banks with any eye toward discussing how deliberations should be evaluated for effectiveness and credibility.

#### **The Policy Decision Process**

In setting monetary policy, a central bank like the Federal Reserve must deliberate systematically about a wide variety of important issues. Perhaps at the cost of oversimplifying, I will broadly characterize this deliberative process as consisting of four steps.

First, members of the Federal Open Market Committee (FOMC) must have a clear vision of the goals of monetary policy. In my mind, the Federal Reserve Act is very clear in specifying that the Federal Reserve has a dual mandate: The FOMC should provide for monetary and financial conditions that support maximum employment and price stability. With regard to inflation, we should seek to keep inflation near 2 percent over the medium term. We should also remember that a 2 percent objective should represent

<sup>&</sup>lt;sup>2</sup> See Evans (2011).

an average level of inflation, not an impenetrable ceiling. With regard to our real economy mandate, we should minimize the deviations of the actual path of the real economy from its potential path (or more technically, its efficiently-achievable path). From my earlier discussion of the immensity of the current problem, we are far from minimizing these real deviations today.

Second, the FOMC needs to closely look at the plethora of data that comes out every month in order to evaluate the outlook for the economy and inflation, keeping in mind a variety of potential risk scenarios and financial stability considerations. Four times each year, the FOMC formally publishes forecasts in its *Summary of Economic Projections*. Of course, it is crucial for each FOMC member to update his/her outlook for each meeting.

Third, in evaluating the state of the economy and inflation pressures, the FOMC must periodically step back and ask itself whether something very different than normal is afoot. We all recognize that our views about how the economy works are imperfect. So we must always ask if we have seen anything that would move us away from our current viewpoints and forecasting methodologies — and if things have changed significantly, we must ask if achievable paths for our policy goals or the channels through which monetary policy works have been altered in any substantive way. These considerations would include questions about whether we are facing structural economic change that lowers the economy's potential output, substantial financial impediments holding back demand along the lines stressed by Reinhart and Rogoff, global financial stress, and the like. A good portion of these concerns are related to appropriate risk-management considerations.

Fourth, policymakers must make a decision regarding the stance and course of monetary policy. They must ask if their forecasts are consistent with their medium- and long-term policy objectives, and if not, what then is the best response for monetary policy to influence the trajectory of the economy and inflation in order to meet the FOMC's objectives?

That is a very quick summary of the necessary steps for effective monetary policymaking.

Where does credibility come into play in all of this?

Since no policymaking process can be perfect, some errors will naturally arise. At the forecasting stage, no one has a perfect crystal ball. Forecast errors will be made, and these errors could have an impact on credibility. It seems natural to believe that greater losses would occur if there were repeated mistakes in economic projections of a one-sided nature. An example would be repeated extreme optimism or extreme pessimism in the face of reasonable evidence to the contrary. Such bouts could be due to mistakes about cyclical factors or a misunderstanding of the changing structure of the economy.

At the policymaking level, a continuing pattern of not taking appropriate policy actions in the face of a changing economic outlook or structure would presumably lead to poor outcomes against medium-term goals. Now, caution in policymaking can be a virtue. But at some point, when the weight of the evidence is large, continued delays in action could erode credibility.

In general, although a policymaker's credibility account is credited and debited on a regular basis, the most substantial credibility losses come in two varieties: 1) really large and systematic deviations of outcomes from ex ante chosen policy objectives; and 2) a substantial misunderstanding of policy objectives. Monetary economists often point to the poor economic experiences of the 1970s and 1930s as times when the Federal Reserve's credibility account was debited substantially because of both of these factors. I believe the current liquidity trap environment following the 2008 financial crisis is similarly challenging today's policymakers. So far, I believe we have done the right thing. Since the recession's end in 2009, more than once the FOMC's projections have proved too optimistic, and the U.S. economy has been unable to achieve escape velocity for returning to stronger, self-sustaining growth. But instead of doing nothing, the FOMC took further policy actions to support stronger growth in the context of continued price stability. These actions have provided a credible counterweight to the forecast errors and maintained steadfastness with our medium-term policy objectives. I'm not so sure how well we will do going forward. My recent speech in London on dual mandate arithmetic was meant to clarify the challenges we face in describing the Federal Reserve's policy objectives. The upshot I take from that analysis is this: If we sit on our hands as the economy withers relative to our mandate, then we could take a huge hit to our credibility, akin to what happened to our credibility following the devastating mistakes of the 1930s.

### Two Examples of Enormous Credibility Hits to Monetary Policy: The 1970s and 1930s

The Federal Reserve's policy actions during the 1970s and 1930s stand out as two exemplary cases of poor monetary policymaking. In the post-war era, most critics of expansionary monetary policy cite the 1970s Fed Chairmen, Arthur Burns and William Miller, as writing the playbook for high inflationary outcomes. By most accounts, the Burns–Miller Fed failed to understand that growth in the productive capabilities of the U.S. economy had slowed. In addition, changes in labor markets made it harder to allocate workers to new jobs in quick order. As a consequence of these structural shifts in the functioning of the economy, the Fed policymakers failed to realize that output was higher than they thought relative to its potential. As a result, additional monetary stimulus couldn't bring about stronger growth and lower unemployment, but only exacerbated inflation, higher inflationary expectations and an accelerating wage–price spiral. In fact, inflation rose to double digits, wages chased these prices higher in order to minimize reductions in living standards, and unemployment remained high.

The Burns–Miller Fed failed, but where was the failure greatest? With regard to my earlier description of the policymaking process, the Burns–Miller Fed did not properly understand the changing evolution of the U.S. economy in the 1970s, nor how monetary

policy interacted with the new structure. To be fair, the Burns–Miller Fed was not alone—other experts at that time made the same mistakes. These common misunderstandings meant that the credibility loss over being slow to understand the changing environment probably was not large.

Far more damaging to the Burns–Miller Fed's credibility was the failure to adjust policy when it later saw rising and high inflation and inflation expectations. Surely, those developments were major evidence of a change in the structure of the economy, and the Burns–Miller Fed's failure to adjust its thinking and policy in light of them had huge implications for credibility. I take such credibility risks extraordinarily seriously.

The 1930s were an episode of even worse Fed policymaking. This was a period of far greater economic dislocation and hardship. When thinking about the 1930s, I find it useful to turn to the wisdom of Milton Friedman and Anna Schwartz from their book titled A Monetary History of the United States, 1867-1960. Friedman and Schwartz discuss how monetary policy in the early 1930s actually contributed to the contraction, despite the fact that bank reserves increased significantly over that period. Broad monetary aggregates contracted, even though bank reserves were higher, because 1) banking panics and the weak real economy led the public to hoard cash and 2) banks wanted to increase reserve ratios as insurance against liquidity shortages and runs. As a result, the amount of lending supported by a given level of reserves fell dramatically, and the U.S. economy experienced a period of deflation. However, the Fed failed to see that it was running a restrictive monetary policy. One reason was they were striving to stay on the gold standard, which dictated policies to counter gold outflows. In addition, the Fed interpreted the excess reserves on banks' books and the associated low level of money market interest rates as signs of an accommodative financial environment and so did not aggressively loosen monetary policy. But, as Friedman and Schwartz note, this interpretation was misguided—the excess reserves were attempts by banks to maintain a larger buffer stock against liquidity shortages, and low interest rates reflected heightened demands for low-risk assets that the Fed should have further accommodated.

I bring up the 1970s and 1930s Fed policymaking examples because they are relevant for the critiques of monetary policy that we are hearing today. It's safe to say that the aggressive moves the Federal Reserve has made to provide monetary accommodation have not been universally applauded. Critics point to the large expansion of bank reserves and low levels of interest rates throughout the Treasury yield curve and surmise that the Fed is sowing the seeds of future inflation, as in the 1970s. They believe we should be taking back accommodation — some say now, some say soon — as the recovery gains some more steam or inflation creeps up a few more tenths.

I don't see it that way. Rather than fighting the inflation ghosts of the 1970s, I am more worried about repeating the mistakes of the 1930s. As in the 1930s, today we see a lack of demand for loans and a resistance of lenders to take on risk — factors that mean the high level of bank reserves is not finding its way into broader money measures. As in the 1930s, today's low Treasury interest rates in good part reflect elevated demand for

low-risk assets — we see investors run to U.S. Treasury markets every time they hear any bad economic news from anywhere in the world. Consider another metric for interest rates, the well-known Taylor Rule, which captures how monetary policy typically adjusts to output gaps and deviations in inflation from target. Its prescriptions would call for the federal funds rates to be something like –3.6 percent now, well below the zero lower bound the funds rate is currently stuck at. Our large-scale asset purchases have provided additional stimulus, but by most estimates not enough to bring us down to the Taylor Rule prescriptions. Also, I should note that in 1998, Friedman gave a similar recommendation to the Japanese, advocating that the Bank of Japan undertake more accommodation by buying government bonds on the open market.

Other critics raise the specter of 1970s-like structural changes in the economy. Such changes, they argue, have reduced our productive potential, in particular the mechanisms by which resources — most notably labor — move from declining to expanding sectors of the economy. I am acutely aware of the costs of making such an error. No central banker wants to repeat the painful experiences of the 1979–83 period. Indeed, the FOMC discussed this issue at great length (see the minutes of our January 2011 meeting). However, I have yet to see empirical evidence based on a modeling framework that successfully captures U.S. business cycle dynamics that shows such supply-side structural factors can come close to explaining the huge shortfalls in actual GDP from trend and the high level of unemployment. For example, extended unemployment insurance and increased difficulties in matching workers to vacant jobs may have resulted in a transitory increase in the natural rate of unemployment, but the analysis I've seen doesn't get you close to the 9 percent rate we currently are experiencing.

#### The Policy Loss Function

The macroeconomics literature often describes the policymaker's problem as one of minimizing societal costs of bad outcomes—which it mathematically approximates by the sum of the squared deviations in inflation from its target and the unemployment rate from its so-called natural rate. It turns out that a conservative and tough-minded central banker should value these deviations about equally. Accordingly, an inflation rate of 5 percent against an inflation goal of 2 percent is the same sized loss as an unemployment rate of 9 percent against a conservative estimate of 6 percent for the natural rate of unemployment. Today, we are facing an unemployment rate of 9 percent with little prospect of meaningful declines soon and the medium-term outlook for inflation is under 2 percent.

This policy framework is often described as flexible inflation targeting. In strict inflation targeting, all policy actions are aimed at hitting an inflation target. In flexible targeting,

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<sup>&</sup>lt;sup>3</sup> For example, the economy may have experienced some permanent loss of potential output during the recession partly because of reduced capital deepening with lower rates of investment and partly because of other factors. In addition, extended unemployment insurance benefits and difficulties in matching workers with jobs may be temporarily pushing up the natural rate of unemployment.

<sup>&</sup>lt;sup>4</sup> See Board of Governors of the Federal Reserve System (2011).

<sup>&</sup>lt;sup>5</sup> See Evans (2011).

policymakers balance deviations from both the unemployment and inflation targets. Usually, the policy prescriptions from the two targets are not in conflict. Above- target unemployment is typically associated with muted inflationary pressures, and accommodative policies are appropriate to reduce both gaps from their respective targets. At times, however, conflicts can occur. When they do, a flexible targeter does not accept a large miss in one target in order to hit the other perfectly, but instead accepts moderate misses in both in order to minimize the total loss. A corollary is that any flexible inflation targeter has to accept the idea that optimal policy may involve inflation running for a time above the long-run target if that is a consequence of policies designed to bring unemployment more in line with its target rate.

#### **Policy Prescription**

Given the economic scenario and inflation outlook I have discussed, if it were possible, I would favor cutting the federal funds rate by several percentage points. But since the federal funds rate is already near zero now, that's not an option. To date, the Fed's policymaking committee, the FOMC, has used a number of nontraditional policy tools to impart greater financial accommodation. I have fully supported these policies. However, I would argue for further policy actions based on our dual mandate responsibilities and the strong impediments of the financial crisis.

In a recent *Financial Times* commentary, Michael Woodford of Columbia University discussed how greater clarity in policy communications would help<sup>6</sup>. I agree. As I see it. current financial conditions are more restrictive than I favor, in part because households, businesses and markets place too much weight on the possibility that Fed policy will turn restrictive in the near to medium term. The FOMC's announcement in August that it anticipates short-term rates remaining low through mid-2013 was certainly a step in the right direction because it significantly raised the hurdle for early policy tightening. But I think we could go even further. One way would be to make a simple statement about our policy plans that clearly lays out our conditionality in terms of our dual mandate responsibilities and observable economic data. This could be done by stating that we would hold the federal funds rate at extraordinarily low levels until particular markers were reached with regard to the unemployment rate and inflation. I will talk about this in more detail in a minute. Alternatively, I have previously discussed how state-contingent, price-level targeting would work in this regard. Another possibility might be to target the level of nominal GDP, with the goal of bringing it back to the growth trend that existed before the recession. I think these kinds of policies are worth seriously contemplating as ways to enhance economic growth and employment while maintaining a disciplined inflation performance.

#### **Policy Problem**

Such conditional-trigger and level-targeting policies could result in inflation running at rates that would make us uncomfortable during normal times. I understand this discomfort. The difficulties in reestablishing credibility following the inflation of the 1970s weigh on all central bankers' minds. And many of us are conditioned by the work of Ken

<sup>&</sup>lt;sup>6</sup> Woodford (2011).

<sup>&</sup>lt;sup>7</sup> Again, see Evans (2011).

Roqoff<sup>8</sup> and others, who note that in normal times, we may want conservative central bankers as institutional offsets to what would otherwise be inflationary biases in the monetary policy process.

Given this strong anti-inflationary orientation of central bankers, appropriate policy actions may face a credibility challenge of a different nature than we are used to talking about — can conservative central bankers be counted on to commit to keeping interest rates low in the event inflation rises above their long-run target? To the degree that the public doubts that we will, current accommodation is reduced because expected future short-term rates, interest rate uncertainty and associated risk premiums all will be higher than they otherwise would be. Premature talk of exit strategies or assertions of inflation targets as ceilings only feed the perception that we are not committed to the low rates. And thus, I think we are seeing such added restraint today.

#### **A Proposed Policy**

I believe that we can substantially ease the public's concern that monetary policy will become restrictive in the near to medium term and, hence, reduce the restraint in expanding economic activity. This can be done by clearly spelling out in our policy statements the conditionality of our dual mandate responsibilities. What should such a statement look like? I think we should consider committing to keep short-term rates at zero until either the unemployment rate goes below 7 percent or the outlook for inflation over the medium term goes above 3 percent. Such policies should enable us to make progress toward our mandated goals. But if this progress is too slow, then we should move forward with increased purchases of longer-term securities. We might even consider a regime in which we reevaluate our progress toward our policy goals and the rate of purchase of such assets at every FOMC meeting.

Let me note several aspects to this policy conditionality. As I just said, I subscribe to a 2 percent target for inflation over the long run. However, given how badly we are doing on our employment mandate, we need to be willing to take a risk on inflation going modestly higher in the short run if that is a consequence of polices aimed at lowering unemployment. With regard to the inflation marker, we have already experienced unduly low inflation of 1 percent; so against an objective of 2 percent, 3 percent inflation would be an equivalent policy loss to what we have already experienced. On the unemployment marker, a decline to 7 percent would be quite helpful. However, weighed against a conservative estimate for the natural rate of unemployment of 6 percent, it still represents a substantial policy loss. Indeed, weighed against a less conservative longrun estimate of the natural rate, it is a larger policy loss than that from 3 percent inflation. Accordingly, these triggers remain guite conservatively tilted in favor of disciplined inflation performance over enhanced growth and employment, and it would not be unreasonable to consider an even lower unemployment threshold before starting policy tightening.

<sup>&</sup>lt;sup>8</sup> Rogoff (1985).

I would also highlight that while I believe that optimal policy would be consistent with inflation running above our 2 percent target for some time, this policy does not abandon the 2 percent target for long-run inflation. Indeed, I would support combining this policy with a formal statement of 2 percent as our longer-run inflation target in conjunction with reaffirming our commitment to flexible inflation-targeting. Furthermore, I see a 3 percent inflation threshold as a safeguard against inflation running too high for too long and thus unhinging longer-run inflation expectations. It also is a safeguard against the kinds of policy errors we made in the 1970s. If potential output is indeed lower and the natural rate of unemployment higher than I currently think, then resource pressures would emerge and actual inflation and the outlook for inflation over the medium term would rise faster than expected. If this outlook for inflation hit 3 percent before the unemployment rate falls to 7 percent, then we would begin to tighten policy.

I understand that some may find such a policy proposal to be hard to understand, or even risky. But these are not ordinary times — we are in the aftermath of a financial crisis with massive output gaps, with stubborn debt overhangs and high degrees of household and business caution that are weighing on economic activity. As Ken Rogoff wrote in a recent piece in the *Financial Times*, "Any inflation above 2 percent may seem anathema to those who still remember the anti-inflation wars of the 1970s and 1980s, but a once-in-75-year crisis calls for outside-the-box measures." The Fed has done a good deal of thinking out of the box over the past four years. I think it is time to do some more.

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<sup>&</sup>lt;sup>9</sup> Rogoff (2011).