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# **Monetary Policy at the Zero Lower Bound**

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**FEDERAL RESERVE BANK OF CHICAGO**

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Those of the Federal Reserve System or the FOMC.

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## Introduction

Thank you for that kind introduction. I'm delighted to be here in Hong Kong tonight to offer my perspective on challenges facing the global economy and some insights into U.S. monetary policy. And I look forward to hearing from you during our question-and-answer period.

Before I begin, let me say that the views I express here are my own and do not necessarily reflect the views of my colleagues on the Federal Open Market Committee (FOMC) or within the Federal Reserve System.

Recently, the FOMC has made significant changes in its communications by providing economic guidelines for the conduct of future monetary policy. This is part of a larger strategy intended to make monetary policy more transparent and predictable to the public — which we feel can increase the efficacy of our efforts to achieve our dual mandate goals of price stability and maximum sustainable employment. In the current setting, such efforts have meant maintaining a highly accommodative monetary policy well after the end of the financial crisis and steep recession. We have had to do so because the economic recovery has been quite modest by any standard and because we continue to face numerous near-term obstacles to growth.

Before discussing the U.S. monetary policy situation in more detail, I'd like to mention some longer-run challenges facing the U.S. and many other advanced economies throughout the world, with an eye on their implications for the medium-term economic outlook.

## Long-Run Issues Facing the U.S. and Other Advanced Economies and Their Implications for the Economic Outlook

These issues revolve around demands on the United States' fiscal resources. At the risk of oversimplifying, I would say that the situation seems to be characterized by three important features. First, the current level of federal government debt to gross domestic product (GDP) in the U.S. is about 70 percent and quite high by our historical standards.<sup>1</sup> Second, we face a critical driver that, if unaddressed, points to higher debt in the future — this is the need to fund and deliver large benefits to an increasingly aging population. Third, the recent downturn and prolonged period of high

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<sup>1</sup> The Congressional Budget Office has estimated that at the end of fiscal year 2012 the ratio of federal debt held by the public to GDP was 72.8 percent.

unemployment have complicated the formulation of policies aimed at adjusting to a new sustainable fiscal path.

As a result, no matter how our fiscal problems are resolved, the U.S. consumer is no longer in a position to be the engine of world growth. Funding the future requirements of retired workers likely will require increases in personal saving or government taxation at some point in the not-too-distant future.

Furthermore, over the near term, many U.S. households will continue to be challenged by a debt overhang and large losses of wealth that were incurred during the financial crisis. Together, these factors point to lower rates of personal consumption in the United States. Moreover, many advanced economies face their own fiscal imbalances and unfavorable demographics that also will likely weigh on total world consumption. This means that emerging markets, faced with reduced aggregate demand from many of their trading partners, will need to endorse policies that encourage domestic consumption and demand. Making that transition will be challenging.

Another important point I want to emphasize is that timing matters. The United States must consolidate its public sector finances; but it must do so gradually if we are to avoid further economic turmoil or another downturn. And looking beyond the U.S. experience, I see that economic growth is already weak in many advanced economies throughout the world. Indeed, Europe is in a recession. And fiscal policy in several European countries is currently restrictive. Certainly, progress needs to be made on reducing outsized deficits. But too much austerity too soon could be very damaging to near- and medium-term growth. Abrupt moves to increase taxes or lower government spending when the economy is already weak could have an amplifying effect on reducing real growth. Indeed, such fiscal moves could cause longer-lasting damage if they result in lower growth in the physical productive capital stock and even more time out of work for the long-term unemployed, whose job skills would be further eroded.

Of course, all of the long-term challenges we face become easier to meet if we can increase the underlying growth potential of our economies. Many public policy choices are relevant here. In the United States, we can improve our educational system, leading to a more productive work force. In the European periphery, economic liberalization, particularly of labor markets, can produce a more efficient allocation of resources and increased potential. And in all countries, smart regulation, efficient tax codes and support for free international trade can increase productive capacities.

### **Economic Outlook: A Modest Recovery and Contained Inflation**

Let me now turn to monetary policy in the United States. When making their projections in early December, FOMC participants projected real GDP growth in 2013 to be moderately higher than in 2012, but still only modestly above potential. Such growth would likely generate only a small decline in the unemployment rate from its current level of 7.8 percent. Against this backdrop of modest growth and still elevated unemployment, most FOMC participants expected inflation to run a bit under the

FOMC's stated goal of 2 percent. And though I can only speak for the Chicago Fed, based on what we have seen so far, it does not appear that the effects of fiscal policy on growth this year will be much different from when we made our forecast in December.

## **Recent Monetary Policy Actions**

Ordinarily, the normal monetary policy response to high unemployment and contained inflation would be to reduce short-term nominal interest rates. However, the federal funds rate, which is the short-term rate the FOMC targets, is for all practical purposes already set as low as feasible. Consequently, nontraditional means of providing additional monetary policy accommodation must be used. And we certainly have used them.

First, there were our large-scale asset purchase programs with pre-announced purchase amounts. These programs bought predetermined quantities of Treasuries and mortgage-backed securities over a fixed period of time. Their aim was to put downward pressure on longer-term interest rates and help make broader financial conditions more accommodative, thereby stimulating business and household spending. Last September, we began a new program of open-ended asset purchases. The important new aspect of this program is that the length of time over which we will buy assets is tied to economic outcomes. In particular, the purchases will continue until there is substantial improvement in labor markets, subject, of course, to a continued environment of price stability.

Another unconventional tool we've used is to provide forward guidance on how long the federal funds rate is expected to remain near zero. Beginning in August 2011, this was in the form of a calendar date. Then, last September, the FOMC added its intent to maintain a highly accommodative stance *after* the economic recovery strengthens. And just last month, we changed from using a calendar date to indicating that the federal funds rate is anticipated to remain at its current levels at least as long as the unemployment rate remains above 6-½ percent, inflation in the medium term is projected to be no more than 2-½ percent and longer-term inflation expectations remain well anchored. We also noted that when the FOMC does begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and 2 percent inflation.

These policy adjustments have been particularly innovative and require careful explanation. Why should policy remain accommodative even after we have a stronger recovery? The delay is a feature of what modern macroeconomic theory tells us is the optimal policy response to the extraordinary circumstances we have faced over the past four years.<sup>2</sup> Because short-term rates are constrained by the zero lower bound, modern theory says a central bank should promise that once economic activity recovers, it will for a time hold rates below what they typically would be. This makes up for the period

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<sup>2</sup>See, for instance, Reifschneider and Williams (2000), Eggertsson and Woodford (2003) and Werning (2011).

when it was constrained from taking rates negative. In other words, the average path for rates is closer to being right over time.

Why tie the open-ended asset purchases and the funds rate liftoff to specific economic conditions? Well, doing this clarifies how our policy decisions are conditional on making adequate progress toward our dual mandate goals — which is measured by economic conditions, not calendar time. Indeed, because we cannot foresee all of the developments affecting the outlook, we simply can't commit firmly to a date when those economic conditions will be achieved. And, of course, some may still interpret a far-distant date for the policy liftoff as a forecast that economic conditions will remain poor for a long time, rather than an intention to keep rates near zero even after the recovery is firmly entrenched.

I also would note that the 2-½ percent inflation threshold is not a restatement of our long-run inflation goal — that goal is still 2 percent. The slightly higher threshold value simply captures how our symmetric view of that long-run goal allows for inflation at times to run modestly above 2 percent.

Given more explicit conditionality, markets can be more confident that we will provide the monetary accommodation necessary to close the large resource gaps that currently exist. Additionally, the public can be more certain that we will not wait too long to tighten if inflation were to become a substantial concern. More explicit forward guidance provides additional accommodation by reducing longer-term interest rates through a lower expected path for short-term rates. Also, clarifying conditionalities can help households and businesses better plan for the future, and so boost the effectiveness of our current policies by reducing risk premia.

## **Conclusion**

To conclude, I believe that the U.S. and other advanced economies are facing significant long-term challenges in credibly controlling future debt levels. At the same time, we are also confronting the immediate challenge of not imposing too much austerity on our fragile economies. Clearly our fiscal authorities must find the appropriate balance between meeting these two challenges. As almost everyone agrees, this implies putting in place policies that slowly but surely bring the prospects of future revenues into balance with future spending.

Under this scenario, monetary policy has an important contribution to make. It should provide financial conditions that help produce the most robust demand growth we reasonably can achieve, with appropriate measures in place to safeguard price stability. As I've explained, the FOMC has recently taken important steps in this direction. And I believe that such steps can help provide the stimulus to growth that can benefit our future well-being in the United States and around the world.

Thank you.

## References

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