How Much Longer? (Only the Data Know)

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Introduction

Thank you Morris Davis for that kind introduction and also for the invitation to speak today to the 2013 Wisconsin Real Estate and Economic Outlook Conference

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.

The mission of the Federal Reserve is to foster monetary and financial conditions that support maximum employment and price stability. Since the beginning of 2008, that mission to fulfill our dual mandate has been put to the test. The country has struggled through a very serious financial crisis, a two-year recession and what, so far, has been a most unsatisfying recovery. The economy continues to perform below capacity, and inflation remains lower than our 2 percent target.

In response, the FOMC has acted decisively to provide extraordinary monetary policy accommodation to help the economy regain its footing. The target fed funds rate has been near zero for the past five years. Nonetheless, massive shortfalls in aggregate demand have left the unemployment rate persistently above the 5 to 6 percent range that characterizes a well-functioning labor market. At the same time, inflation has been well below our 2 percent long-run target.

With the federal funds rate pinned down at its zero lower bound, the FOMC has turned to nontraditional tools — namely, forward guidance on short-term interest rates and large-scale asset purchases (LSAPs). Our strategy is to promote a faster recovery by lowering long-term interest rates. A classic textbook decomposition of long-term rates is to view them as the sum of expected future short-term rates and a premium that compensates for interest rate risk. The new tools are aimed at influencing both of these components of long-term rates. Forward guidance reduces expected future short-term rates by ensuring that the fed funds rate will remain low until we reach specific thresholds with respect to the dual mandate goals. The LSAPs are intended to reduce term premiums by removing duration risk from private portfolios. This combination of unconventional tools demonstrated our willingness to take extraordinary measures to restore the economy to full employment.

While these policy tools lower interest rates in an unconventional way, their transmission to real economic activity is quite conventional. Through arbitrage and portfolio rebalancing, lower rates in one market — whether it's the fed funds market or the Treasury and agency mortgage-backed securities markets — are transmitted to other rates faced by investors, nonfinancial firms and consumers, as well as across the asset and maturity spectrum. There is significant evidence that the FOMC's policies have been helpful in lowering rates paid by firms and consumers and, more generally, in

supporting aggregate demand in the face of the substantial economic headwinds over the past six years. These highly accommodative policies — which I expect will continue to be in place for some time — are an important reason why I have a relatively optimistic forecast for the U.S. economy. I expect that in 2014 economic growth will pick up to a pace of around 3 percent, that by the end of the year unemployment will fall to a bit below 7 percent and inflation will be moving back toward our 2 percent target.

Policy Conditionality

Before I turn to the details of this forecast, I would like to talk more about the nontraditional monetary policies supporting this outlook. An important feature of both forward guidance and the current LSAP program is that they are tied to the performance of the economy. I'm often asked questions like the following: How big is the Fed balance sheet going to get?, and exactly when is the first increase in the fed funds rate going to take place? Some days I wish I could answer these questions with a single number, a firm date and a confident fist pump. But that's not possible. Instead, the size of our current quantitative easing (QE) program and the timing of future changes in the fed funds rate depend on the progress that the economy makes toward our dual mandate goals of maximum employment and price stability. Only the data can tell us how much progress we've made, and they aren't saying much right now: The data available in September were inconclusive, and since then, incoming information has been silenced with the federal government shutdown.

Let me start with our current asset purchase program. I believe this program should continue until we are confident that there has been a sustainable improvement in the labor market. Unfortunately, it's difficult to describe what this means in terms of a single number, such as the unemployment rate. One reason is that the labor force participation rate (that is, the percent of the working-age population either employed or actively searching for a job) has been falling dramatically — and by more than what can be explained by the aging population or other long-term demographic factors. This means that the drop of 3/4 percentage points in the unemployment rate we've seen over the past year is not as indicative of a strong labor market as would otherwise be the case, since a sizable portion of the decline is due to fewer people looking for work. For me to be confident that we in fact have achieved substantial, sustainable improvement in labor conditions, I would need to see the lower unemployment rate accompanied by cyclical improvement in the participation rate. And I also would need to see more steady, solid growth in gross domestic product (GDP) to be confident that the labor market gains would not be undone by a drop in businesses' demand for labor.

With regard to forward guidance on the federal funds rate, the FOMC's policy statements since December 2012 have formally indicated that we will keep the fed funds rate near zero at least until the unemployment rate is 6-1/2 percent, so long as the outlook for inflation remains below 2-1/2 percent over the medium term. Now, 6-1/2 percent is a threshold, not a trigger; even after reaching this threshold, if the outlook for growth is not consistent with further improvements in labor markets or the outlook for inflation is too far below 2 percent, we would likely delay increasing rates even longer. I will talk more about this decision process later on.

Mixed News on Economic Activity

Let me turn now to a broader discussion of my economic outlook. Since we began our open-ended approach to asset purchases last fall, the labor market has definitely improved. When we initiated that program in September 2012, the available data showed the unemployment rate at 8.1 percent and job growth over the previous three months averaging a pace of 135,000.

Since then, the unemployment rate has fallen to 7.3 percent and job growth has averaged around 185,000 per month. These are certainly important positive developments. Still, the U.S. economy has a long way to go to return to healthy normality. The unemployment rate is well above the 5.2 to 5.8 percent range that covers most FOMC participants' views of its long-run normal level. Payrolls remain on the order of about 4.7 million below where they should be. And as I just noted, an unusually high number of productive, potential workers are not even looking for jobs right now.

While the labor market has been improving since last fall, overall growth in production and spending has been quite modest. Most private sector forecasters think GDP grew at about a 2 percent pace last quarter; this would put average GDP growth over the past year at just 1.4 percent.

There is a long list of issues holding back the recovery. The higher income tax rates and the end of the 2 percent payroll tax holiday, which went into effect at the beginning of the year, are restraining household spending. Furthermore, some households are still coping with the effects of lower house prices and the erosion in their stock market wealth that occurred during the recession. With only modest demand from consumers, businesses have not been eager to add capacity.

In addition to the tax increases, fiscal policies — which, of course, include the mandatory sequestration — are also weighing on spending. The federal government shutdown only adds to this burden, and the debt ceiling debacle — if not adequately resolved — could have potentially large negative effects on the economy. Another headwind is that growth in many of our trading partners' economies appears likely to remain on the soft side, holding back demand from abroad for U.S. goods and services.

Given this economic setting, one certainly could ask why I expect growth to pick up. Indeed, in 2009, I predicted that it would, and I did the same in 2010, 2011 and 2012. Of course, I was wrong. I was not alone — most FOMC participants and many outside analysts shared this overly optimistic view. Undaunted, I make my intrepid forecast: I anticipate growth will be in the neighborhood of 3 percent next year and the unemployment rate will fall somewhat below 7 percent by the end of 2014.

Why do I think this year's projection is going to be more accurate?

The principal reason is that the economic fundamentals are much improved. The cyclical repair process is well under way. Although many households are still distressed,

the housing sector as a whole is much better off than it was earlier in the recovery. Housing prices have risen noticeably over the past year.[1] The number of mortgages under water is down from 12.1 million in early 2010 to 7.1 million in the second quarter of 2013.[2]

Equity markets have largely recovered and are now around 10 percent above their pre-recessionary peaks. After several years of restraint, there is pent-up demand for consumer durables. Businesses that had generally delayed capital expenditures are in a relatively favorable position today to finance these outlays. Most big businesses' balance sheets are in good shape. Surveys show that fewer small businesses see access to credit as a major concern. And, at the same time, there has been an increase in demand for loans from small firms.

Another factor behind my forecast is that it appears there will be less fiscal restraint in 2014 and 2015, provided that the government shutdown and debt ceiling limit are resolved quickly without significant near-term spending cuts as a condition. Fiscal restraint will still have a negative impact on GDP growth, but the effect should be smaller than it has been recently. The tax hikes that occurred at the beginning of this year won't be repeated in 2014. Furthermore, under current law, much of the impact of the sequestration on government spending occurs in 2013. Accordingly, the fiscal retrenchment over the next few years will be smaller than in 2013, so the negative impact on growth will be less. I reemphasize, though, that this assumes a benign resolution of the current debates.

Thus, I feel the stage is set for what we economists like to refer to as "virtuous cyclical dynamics." Continued growth in jobs and income as well as greater confidence in the labor market will lead to higher household spending. As firms see actual demand rising, they have an incentive to expand capacity, undertake previously delayed capital expenditures and increase hiring. This further improves the well-being of households and continues the virtuous cycle that feeds upon itself.

One challenge to this self-reinforcing mechanism is that there is a chicken-and-egg problem: Who will start first? In order to dramatically increase spending, households need more employment and income certainty. To expand hiring, businesses need more customers walking through their doors. Who will first "ratchet up" these spending cycles to the next level?

The process is more likely to get rolling if the economy experiences more positive impulses and fewer negative jolts. And, indeed, there are a number of downside risks that could produce such jolts. I have already outlined the U.S. fiscal situation. Although

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[1] The Federal Housing Finance Agency's (FHFA) Quarterly House Price Purchase-Only Index is 7.2 percent higher than in the second quarter of 2012. By comparison, the S&P/Case-Shiller Home Price Index shows a 10.0 percent increase for the second quarter of 2013 relative to a year earlier.

[2] CoreLogic (2013); note that changes in methodology by CoreLogic in 2011 may affect comparisons to earlier numbers. See also Timiraos (2013).

Europe appears to finally be in recovery mode, the outlook for growth there is still weak, and the level of economic activity there remains substantially below the previous business cycle peak. Furthermore, growth in emerging market economies has slowed. It's difficult to gauge how structural transformations in China and developments in other emerging markets will affect global economic growth over the next few years.

These international downside risks take on greater prominence when we consider them in the context of weaker U.S. consumer demand. For most of the past 15 years, the American consumer has been the strongest engine of world growth. However, that American consumer has been knocked down several rungs. In order to speed up the economic recovery across the globe and in the United States, consumers elsewhere need to step up to fill the gap left by reduced American consumer demand.

Inflation Is Running Low

What about inflation? Providing financial conditions that deliver low and stable inflation is an important part of the Federal Reserve's dual mandate. However, inflation has been running well below our 2 percent long-run objective for some time. Low wage growth and low interest rates are other indicators that confirm our low inflation experience. To many Fed critics, this low inflation environment has been a big surprise. Let's think back about five years. Recall that in December of 2008, we had brought the federal funds rate down to zero, as low as it can go. In November 2008, we had embarked on our first asset purchases, which we then expanded in March 2009 to a $1.75 trillion asset program. When we took these measures, many critics claimed that the United States was headed for double-digit inflation. I'm from Chicago, home of the well-known monetarist Milton Friedman. Some of the critics invoked his name when issuing warnings that with this kind of balance-sheet growth, higher inflation will surely come soon! Actually, a couple of nice folks mailed me worthless $100 trillion Zimbabwe notes to warn me of the inflationary consequences of our policies.

What a difference a few years makes! Instead of skyrocketing, inflation now stands at 1-1/4 percent, which is 3/4 percentage point below our long-run target of 2 percent. Indeed, it has averaged well below 2 percent since this all began back in 2007. Inflationary expectations have not risen at all. And there are simply no signs of cost pressures building. Most importantly, wage growth has been quite modest, and there is no evidence of labor cost pressures. Without rising labor costs, a 1970s-style cycle of price increases cannot be sustained. That would be a set of price increases feeding through to higher wages that then again fuel further price increases, and the wage–price spiral would continue.

Incidentally, despite what some critics have said, this benign outcome for inflation is actually quite consistent with my reading of Milton Friedman's analysis. The measures of money he associated with inflation were broad measures that include money created by the banking system. The increases we have seen in those measures have been much more moderate. One of the big points from his *Monetary History of the United States*[3] was that focusing too much on the size of the Fed's balance sheet was a bad

[3] Friedman and Schwartz (1971).

idea. Indeed, in the early 1930s, the Fed increased the size of its balance sheet quite substantially. But it wasn't enough. Given the struggles of the banking system, broad measures of money actually declined, leading to deflation. The conclusion was that the Fed needed to have increased its balance sheet even more. That's a lesson the Bernanke Fed has taken to heart this time around.

Let me just remind everyone that inflation falling below our target of 2 percent is costly. If inflation is lower than expected, then debt financing is more burdensome than borrowers expected. Problems of debt overhang become that much worse for the economy. Conversely, if inflation is higher than expected, lenders are disadvantaged. So, that is why it is important for the Fed to provide for inflation that averages over time to our 2 percent long-run objective.

I see us making gradual progress in returning inflation to 2 percent over the next few years. Some of this reflects the unwinding of some temporary factors, such as the effect of the sequestration on Medicare payments and some unusually low readings for some components of the Personal Consumption Expenditure Price Index, for which prices are measured indirectly. But these factors aren't big parts of the story. More importantly, as the real economy improves, the large resource gaps we have will close. Sustained over time, this closing of gaps will feed through to higher wage and price growth. Also, inflation expectations are well anchored and above the current inflation rate, and thus, they are providing an upward pull to prices. However, it could take several years for us to return to our 2 percent inflation objective, and I will be monitoring our progress closely when making my decision about appropriate monetary policy.

Continued Monetary Policy Accommodation Is Necessary

This brings me to an important point about my relatively upbeat projections for both growth and inflation — and returns me to the issues about policy that I opened with here today. These forecasts are based on the assumption that we will continue to provide the economy with substantial monetary policy accommodation.

The degree of accommodation will depend on the data; neither changes in the pace of asset purchases or, further down the road, changes in the fed funds rate are on a preset course. The September meeting provides a window into FOMC decision-making. We viewed the data available at that meeting as being too ambiguous — and the near-term risks to growth as being too large — to slow the pace of LSAPs. We concluded that we had not yet clearly passed the economic markers that would justify a reduction in purchases. Of course, this conclusion was in contrast to the predictions of many observers.

I'd like to note here that the exact pattern of the reduction in purchases eventually taken isn't so critical because the path is likely to have only a marginal impact on what is most important — the total amount of purchases that are eventually made. The assumption underlying my current forecast is that by the time we end the program, total asset purchases since January 2013 will be in the neighborhood of $1.25 trillion. This is a very

substantial program — one that is about double the size of our QE2 program that we ran between the fall of 2010 and the summer of 2011.
Furthermore, when we ultimately end the current purchase program, we won't be doing anything to reduce the balance sheet. Even though it will no longer be expanding, the balance sheet won't actually begin to shrink until sometime much later when we make the decision to stop reinvesting maturing assets. Even then, it will only gradually decline as assets mature. Accordingly, our expanded balance sheet will be providing accommodation for a long time after we have ceased adding assets to our portfolio.

Similarly, our policies with regard to the federal funds rate will depend on the course of the economy. I want to reiterate the point that the Chairman and other members of the Federal Open Market Committee have made recently and that I talked about earlier in my remarks. The unemployment rate hitting 6-1/2 percent will not automatically result in an increase in the federal funds rate. When we cross the 6-1/2 percent unemployment rate threshold, we will closely evaluate the available information. When evaluating policy, we will take into account a couple of basic principles. One is that our 2 percent inflation goal is a symmetric target, not a ceiling. We're shooting for inflation to average 2 percent over the medium term. This is different from aiming to keep it no higher than 2 percent.

Another principle is that when setting policy, we will take a balanced approach to achieving our dual mandate objectives. These principles will govern our judgment of whether or not it will be appropriate to raise the fed funds rate when we hit an unemployment rate of 6-1/2 percent.

Suppose the unemployment rate reached 6-1/2 percent and inflation were 1-1/2 percent. One-and-a-half percent strikes me as much too low relative to our 2 percent target, especially since inflation has been running below 2 percent for quite a long time. I think that in this situation, it would be appropriate to hold the fed funds rate near zero to get inflation confidently moving back up toward 2 percent. I can easily envision certain circumstances in which the unemployment rate could go below 6 percent before we moved the fed funds rate up.

Conclusion

As we move closer to the time when we begin to pare back the flow of additional accommodation and contemplate eventually returning to a more normal monetary policy environment, the need for clear and effective communication is essential. In answer to the questions of how much longer and whether we are near the endpoint for policy accommodation, I decidedly say no. It is not yet time to remove accommodation. The data are still not definitive enough to say that now is time to adjust the QE3 flow purchase rate. And we are a long way from seeing an unemployment rate below 6-1/2 percent in the context of inflation moving surely toward our target. Accordingly, I expect our overall stance of monetary policy to remain highly accommodative for some time to come. My colleagues on the FOMC and I have laid out certain markers that should help gauge the timing of when we will begin to change the stance of policy. When those

markers are reached, we will carefully weigh incoming data to determine if we can improve economic activity and bring inflation in at our 2 percent objective.

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