

*Maximum Employment and Monetary Policy*

September 18, 2012

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The Federal Open Market Committee (FOMC) conducts the nation's monetary policy subject to its congressional mandate to pursue "maximum employment, stable prices and moderate long-term interest rates."<sup>1</sup> Most people talk about only the first two objectives and refer to the Fed's "dual mandate." The dual mandate poses a clear challenge for the FOMC in times like these. Three years after the end of the Great Recession, employment seems far from what anyone would consider its maximum level by historical standards, with unemployment above 8 percent, labor force participation having fallen dramatically and the ratio of employment to population at its lowest level in nearly 30 years. Although we have seen spurts of more robust employment growth, they seem to peter out after several months. Since employment bottomed out in February 2010, we've only managed to add 135,000 net new jobs per month, a rate that is generally not expected to be able to bring down unemployment very rapidly.

With this backdrop, the FOMC voted recently to initiate a new program of asset purchases by buying additional agency mortgage-backed securities at a rate of \$40 billion per month. The Committee stated that it "expects that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the economic recovery strengthens," and that it currently anticipates that exceptionally low levels for the federal funds rate are likely to be warranted at least through mid-2015. As you may know, I dissented, and I will discuss the reasons for my dissent later in my remarks.

The Committee's actions and communications are consistent with a widespread view of the dual mandate — namely, that as long as unemployment remains high, the Fed has room to stimulate employment growth without putting its price stability goal too much at risk. In this view, high unemployment represents slack in the economy that prevents inflationary pressures from taking hold — and could even lead to unwelcome disinflation or deflation. A somewhat stronger reading of the mandate even suggests that, in circumstances like the present, the Fed can and should accept an increased rate of inflation for some time in order to accelerate improvement in labor market conditions. While I do not believe this view of the mandate is driving the Committee's recent decisions, it's a view that has been associated with a number of prominent economists.

In my remarks today, I would like to take a closer look at the concept of economic slack and what it means for the Fed's maximum employment mandate. A review of the role of maximum employment in the conduct of monetary policy leads naturally, I believe, to a degree of

skepticism regarding the net benefits of adding further monetary stimulus in the present environment. So you won't be surprised to hear me tell you that the views I express are my own and are not necessarily shared by my FOMC colleagues.<sup>2</sup>

As you might expect, the Committee has spent a great deal of time in recent years studying labor market conditions and their implications for our monetary policy mission. In January of this year, the FOMC released a Longer-Run Goals and Policy Strategy statement.<sup>3</sup> That statement outlined a broad set of principles pertaining to the implementation of its congressional mandate.

The FOMC spent a good deal of time on the question of how to measure performance relative to our price stability mandate. Because the inflation rate over the longer run is determined by monetary policy, the Committee has the ability to specify a numerical target for inflation. The Committee decided that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate.

The maximum employment objective of the mandate also requires a yardstick against which to compare actual labor market performance. One possible approach is to gauge what the employment rate or the unemployment rate would be in "normal times," after the economy has been able to recover from adversity. "To be precise, to what number would the unemployment rate converge, in the future, in the absence of further shocks and under appropriate monetary policy." Call this "the long-run normal rate of unemployment," or just "the long-run unemployment rate."

This measure also can be thought of in terms of the path to which *employment* would converge in the absence of unanticipated shocks and under appropriate policy. Given how the size of the labor force behaves over time, the unemployment rate and the level of employment are, at least conceptually, interchangeable ways of thinking about labor market conditions.<sup>4</sup> For simplicity and convenience, in the rest of my remarks, I will refer to the unemployment rate, but all that I will say can be translated directly into statements about employment or, for that matter, output.

In evaluating the current stance of monetary policy, the long-run unemployment rate would appear to be an attractive yardstick, since it provides a sense of where one ultimately would like to be. But for assessing monetary policy on a month-to-month or quarter-to-quarter basis, the long-run unemployment rate can be very misleading. For example, when unemployment is relatively high, it's unlikely that unemployment can be made to return to the long-run unemployment rate at a very rapid clip — within a quarter or two, say. At such times, the best possible monetary policy will only bring unemployment down gradually over time. We can debate whether a given pace is faster or slower than optimal. But there is undoubtedly some optimal pace, and it's unlikely to be virtually instantaneous. While that convergence process is going on, to what unemployment rate should we refer when assessing monetary policy? In other words, while an economy is adjusting to significant economic shocks, what constitutes "maximum employment"? Surely not the long-run rate, because how far we are away from that rate does not, in general, tell us how fast we should be returning.

A few examples illustrate this principle. Consider a large and permanent oil price increase. Such “supply shocks” reduce the productive capacity of the economy. On impact, inflation and unemployment may rise. Costly and time-consuming adjustments take place in response to the new relative price of oil; businesses shift input mixes and adjust their capital, while consumers alter spending patterns. Over time, productive capacity is restored and real incomes recover. In the meantime, before those adjustments are complete, an attempt to reduce unemployment too rapidly is likely to spark more inflation; conversely, allowing disinflation to emerge may cause unemployment to decline too slowly. In other words, there’s a reference unemployment rate that is relevant for monetary policy, and until the real economic adjustments to the oil price shock have taken place, it will be above the long-run rate.

Another example, with similar implications, is an acceleration of productivity growth similar to the one we saw in the late 1990s. This might allow lower unemployment without accelerating inflation. A focus on the long-run unemployment rate might lead one to tighten monetary policy prematurely. Acknowledging that the right yardstick for monetary policy might have fallen below the long-run unemployment rate leads to better outcomes.

As a third and final example, consider a shock that causes economic activity to shift rapidly away from some sectors and toward others. Such a shock could lead to persistently high unemployment because costly and time-consuming retraining is required for workers to move between sectors, or because capital investments in other sectors are required to absorb the newly available pool of labor. In the absence of further shocks, society’s optimal response is likely to have the unemployment rate decline gradually over time. This, arguably, is the type of shock that contributed significantly to the Great Recession — an unexpected decline in residential construction that resulted in an oversupply of labor and capital that has been difficult to successfully redeploy to other sectors.

These three examples all illustrate a general result from the models that most contemporary economists use to analyze business cycles and monetary policy. In such models, there is a reference unemployment rate to which it’s most appropriate to compare the current unemployment rate for the purposes of assessing current policy. In general, that reference rate is a function of most of the shocks in the model.<sup>5</sup> The most common term for this reference rate is “the natural rate” of unemployment, although there is some variation among authors.

There is a clear intuition for having the unemployment yardstick for monetary policy vary with economic conditions. Modern economies are buffeted by unanticipated disturbances. Even at their best, economies take time to adjust to those shocks. The pace of that adjustment is in turn affected by a variety of frictions in an economy — frictions in the way firms determine the prices of their goods, frictions in the process of searching for the most promising opportunities to deploy available capital and labor resources, and frictions in the way workers and employers search for each other and determine wages, among others. Monetary policy is simply unable to offset all of the ways in which various frictions impede the economy’s adjustment to various shocks. The term ‘maximum employment’ should therefore be thought of as the level of employment that currently can be achieved by a central bank, taking into account its long-run objectives and the very real impediments to a more rapid adjustment to recent economic shocks.

From this perspective, some popular empirical practices are of dubious value for evaluating current monetary policy. For example, estimates of an older concept known as the “non-accelerating inflation rate of unemployment,” or “NAIRU,” are aimed at measuring the long-run normal unemployment rate. Estimates of NAIRU invariably *impose* the assumption that it varies only slowly and does not respond to many transitory shocks. Many other estimates of benchmark unemployment rates also impose conditions that prevent them from fluctuating with unanticipated economic shocks. These are reasonable strategies for estimating the long-run unemployment rate, but *by design*, they will fail to capture important variations in the natural rate, especially variations over the business cycle. Thus they will be incomplete and potentially misleading guides to policy and inflation dynamics in the short run.

Estimating the natural rate of unemployment is difficult because it requires us to be as precise as possible about both the shocks that drive the behavior of the economy over time and the frictions that govern how the economy responds. The modern macroeconomic models most widely used for policy analysis specify and estimate those shocks and frictions, which allows one to make inferences about the current natural rate implied by the model. This approach leaves considerable uncertainty, since broadly similar models can still lead to different implications about the natural rate. Nonetheless, specifying an explicit model has the advantage of transparency regarding the range of judgments underlying any given estimate — you have to “put your cards on the table,” as it were. I see no good substitute for spelling out clear models if we’re to seriously assess the Fed’s performance on its maximum employment mandate.

The FOMC’s statement on Longer-Run Goals and Policy Strategy<sup>6</sup> recognizes this distinction between the natural rate as an appropriate yardstick and the long-run unemployment concept. I will read from that statement.

“The maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market. These factors may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment; rather, the Committee’s policy decisions must be informed by assessments of the maximum level of employment, recognizing that such assessments are necessarily uncertain and subject to revision. The Committee considers a wide range of indicators in making these assessments. Information about Committee participants’ estimates of the longer-run normal rates of output growth and unemployment is published four times per year in the FOMC’s Summary of Economic Projections.”

The identification of maximum employment as driven by a range of real economic shocks lines up precisely with what I have been calling the natural unemployment rate. The longer-run normal rate of unemployment is a distinct concept, but one which informs Committee participants’ assessments of the maximum level of employment that’s relevant to current monetary policy. In principle, the natural rate could be close to the long-run unemployment rate, depending on the nature of shocks and frictions affecting the economy. Such alignment might be expected when an economic expansion is mature. But generally these rates will differ, particularly following significant economic disturbances or disruptions, when the natural rate could be well above the long-run rate, perhaps for a considerable period of time.

This distinction between the unemployment rate relevant to current policy and the unemployment rate we can expect in the longer run, absent further shocks, was critical to my decision to dissent from the most recent FOMC decision. The journey back to the long-run rate of unemployment is taking longer than we may have anticipated, and certainly longer than we would like. And the delay has meant significant hardships for many American families, make no mistake about it. But my assessment is that there are several impediments to more rapid growth that are likely to have significantly increased the natural rate. First, the housing market is still coping with the large inventory overhang that remains from the prerecession boom. This sector has begun to show some encouraging signs, with home prices and construction showing improvement this year. But housing investment is still quite low relative to historical norms, and it will continue to underperform until the demand for housing makes more progress catching up to the existing housing stock.

Second, and related, was the significant shift in economic activity away from residential construction and related supply industries. The rapid loss of jobs in these industries, layered on top of ongoing longer-run sectoral shifts, resulted in large inflows into the ranks of the unemployed. The resulting shift in the profile of available workers has meant that the reallocation and skill mismatch frictions affecting labor markets are at a relatively high level. Finally, the political gridlock that has delayed remedies to our unsustainable federal fiscal path has meant paralyzing uncertainty across the vast range of fiscal policy touch points in the economy. This appears to have seriously dampened investments and hiring for the new business ventures that typically would take up the economic slack caused by one sector's decline.

These forces are hard to quantify, but my sense, given an array of statistical analyses and a wide range of qualitative reports, is that labor market conditions have been held back by real impediments that are beyond the capacity of monetary policy to offset. The collapse in housing construction was a huge blow to our economy, and it will take a substantial amount of time for us to recover by shifting labor, capital and spending toward other growth opportunities. Thus, my assessment is that a reasonably strong case can be made that the natural rate of unemployment that corresponds to the Fed's maximum employment mandate is now relatively elevated.

Given this assessment, I dissented on the question of a new asset purchase program because, in such circumstances, further monetary stimulus runs the risk of raising inflation in a way that threatens the stability of inflation expectations. Recently, inflation has been running close to the Committee's goal of 2 percent per year. In fact, over the last 20 years, inflation has averaged very close to 2 percent, despite significant quarter-to-quarter and year-to-year fluctuations. That track record appears to have given market participants some confidence in the Fed's commitment to keep inflation around 2 percent going forward. Indeed, measures of inflation expectations have been remarkably stable over the last two decades. But that confidence should not be taken for granted. Perceptions that the Committee was focused on reducing unemployment at the expense of maintaining price stability would undercut that confidence and destabilize inflation. The consequences could be devastating, as we saw in the 1970s, when policymakers attempted to push unemployment below an estimate of the natural rate that was, in hindsight, mistakenly low.<sup>7</sup>

It's worth noting that when previous asset purchase programs were adopted in 2009 and 2010, the inflation outlook was significantly different than today. Back then, deflation appeared to be a very real possibility, so further accommodation, whatever it did for unemployment, also helped keep inflation closer to the Committee's goal of 2 percent.

The Committee's statement also altered the "forward guidance" regarding future monetary policy, stating for the first time that it expected a highly accommodative stance of monetary policy for "a considerable period after the economic recovery strengthens." I disagreed with this statement because I believe a commitment to provide stimulus beyond the point at which the recovery strengthens and growth increases implies too great a willingness to tolerate higher inflation and would be inconsistent with a balanced approach to the FOMC's price stability and maximum employment mandates.

Finally, I strongly opposed purchasing additional agency mortgage-backed securities. These purchases are intended to reduce borrowing rates for conforming home mortgages. Such purchases, as compared to purchases of an equivalent amount of U.S. Treasury securities, distort investment allocations and raise interest rates for other borrowers. Channeling the flow of credit to particular economic sectors is an inappropriate role for the Federal Reserve. Central banks abuse their independence when they promote some borrowers at the expense of others. This principle was recognized in the Joint Statement of the Department of Treasury and the Federal Reserve on March 23, 2009: "Government decisions to influence the allocation of credit are the province of the fiscal authorities," that is, Congress and the administration.

In conclusion, let me emphasize that monetary policy requires making tough calls and that, despite our differences, I have the utmost respect for my FOMC colleagues. Given their decision, I very much hope they are correct that substantial monetary stimulus aimed at hastening the reduction in unemployment will not raise the risk of destabilizing inflation. But given the uncertainty about the economic outlook, I am sure we will all be watching the incoming data with vigilance.

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<sup>1</sup> For a review of the history of the Fed's mandate, see Aaron Steelman, "[The Federal Reserve's 'Dual Mandate': The Evolution of an Idea](#)," Federal Reserve Bank of Richmond Economic Brief, December 2011.

<sup>2</sup> I am grateful to John Weinberg for assistance in preparing these remarks.

<sup>3</sup> Federal Reserve, Board of Governors, "[Longer-Run Goals and Policy Strategy](#)." New and Events, Monetary Policy Press Release, January 25, 2012.

<sup>4</sup> The analysis of such measures is complicated by the fact that labor force participation rates vary with labor market conditions, rising relative to trend when employment growth is strong and falling relative to trend when employment growth is weak or negative. Nonetheless, estimates of these relationships from historical data can be used to project labor force participation under the counterfactual of convergence in the absence of further shocks.

<sup>5</sup> This point has been emphasized by Michael Woodford and others. See Michael Woodford, "Interest and Prices: Foundations of a Theory of Monetary Policy," Princeton, NJ: Princeton Univ. Press, pp. 448-54. Many models abstract from labor market frictions and do not meaningfully model the unemployment rate. In these, there is nonetheless a meaningful measure of the output gap. Other models are rich enough to capture the unemployment rate in a meaningful way.

<sup>6</sup> Federal Reserve, Board of Governors, "[Longer-Run Goals and Policy Strategy](#)." New and Events, Monetary Policy Press Release, January 25, 2012.

<sup>7</sup> Athanosios Orphanides and John C. Williams, "The Decline of Activist Stabilization Policy: Natural Rate Misperceptions, Learning and Expectations," *Journal of Economic Dynamics and Control*, vol. 11, November 2005, pp. 1927-50.