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"Current Economic Conditions and the Implications for Monetary Policy"

Eric S. Rosengren
President & Chief Executive Officer
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Connecticut Business & Industry Association
and the MetroHartford Alliance
Economic Summit & Outlook 2017

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Good morning. I would like to thank the Connecticut Business & Industry Association and the MetroHartford Alliance for having me here today to share my views on the economy. At the outset, let me note as I always do that the views I express today are my own, not necessarily those of my colleagues at the Federal Reserve's Board of Governors or on the Federal Open Market Committee (the FOMC).

In the two years since I last addressed this gathering, much has changed. For those who have heard me speak here over the years, you may recall that from 2007 to 2014, I was a strong advocate for exceptionally accommodative monetary policy to combat the severe recession we experienced in the wake of the financial crisis. More recently, my comments have moved in the other direction, advocating for a gradual return to a more normal monetary policy. It is not that my underlying views or economic analysis have changed; rather, economic circumstances have evolved and now imply the need for a different stance of monetary policy.

Today I will discuss how my earlier preference for “easy” monetary policy and my current desire to gradually normalize the Federal Reserve’s monetary policy stance reflect a single, consistent framework. I would note that my views on the stance of policy, while evolving with the shifting economic conditions, have remained fully consistent with the Fed’s dual mandate of stable prices and maximum sustainable employment.

As everyone likely knows, the Federal Reserve’s policymaking body, the FOMC, raised the federal funds rate by 25 basis points twice since the recovery began – first in December 2015, and then in December 2016. I was strongly supportive of both moves and see them as reflecting the strength of the U.S. economic recovery.

For reasons that I hope to make clear in my remarks today, I expect that appropriate monetary policy will need to normalize more quickly than over the past year, but certainly not as rapidly as in the last tightening cycle, which began in 2004. The current unemployment rate is at my estimate of what is likely to be sustainable in the long run, and total and core PCE inflation measures are approaching the Federal Reserve’s 2 percent inflation target (which is defined in terms of total PCE inflation). Without further gradual increases in interest rates, one might be concerned that the unemployment rate could drift below its long-run sustainable level – and as a result, inflation could eventually exceed the Fed's 2 percent target. So the stance of monetary policy will need to adjust – to prevent the economy from dramatically overshooting on both elements of the dual mandate, which would place the economic recovery at risk.

Recent Financial Market Movements

Figure 1 shows the federal funds rate over the past 15 years. It places the recent increase of 25 basis points in context, and contrasts recent policy actions with those of the last tightening cycle. In the previous tightening cycle that began in 2004, the FOMC raised the federal funds rate by 25 basis points at each meeting. This was described in FOMC statements at the time as increasing rates at a "measured pace." Clearly the last two increases, in December 2015 and December 2016, represent quite a patient policy stance relative to the "measured pace" in the previous cycle.

Such a slow normalization path has been appropriate for several reasons. The significant loss of jobs during the Great Recession ensured the recovery to full employment would not be quick. Real GDP has been growing only slightly faster than potential over most of the recovery, although the growth of potential GDP is certainly slower than it used to be. And through the recovery period, inflation rates both here and abroad have remained well below the inflation targets set by central banks. Because policymakers consistently missed on the weak side of both elements of the dual mandate, it is my view that the very patient and gradual approach to raising the funds rate has been entirely appropriate.

Consistent with the FOMC having raised interest rates quite gradually, expectations for additional increases assumed by markets remain quite modest. **Figure 2** shows the federal funds rate projections through 2017 implied by the futures market at three points – at the time of the first tightening in December 2015, at the beginning of last July after the Brexit vote, and as of last Friday. The financial markets have indicated skepticism about how quickly the Federal Reserve will be able to normalize rates, and imply a path only somewhat faster than the past two years.

Despite the relatively slow pace of increases reflected in market expectations for the federal funds rate, longer-term rates have increased significantly since the November FOMC meeting. The bar chart in **Figure 3** shows that the 10-year U.S. Treasury rate has increased by more than 50 basis points, and long rates in the United Kingdom, Germany, and Japan have also increased – although by much less. These results may reflect the expectation of potentially more stimulative fiscal policy, greater confidence that inflation will increase toward targets, and more optimism about global prospects.

An indicator of greater confidence in inflation rates rising to targets is seen in the "break-even" inflation rates that are implied by the difference between five-year Treasury rates and rates on five-year Treasury Inflation-Protected Securities (TIPS). As shown in **Figure 4**, over the past five years the break-even inflation rate has been well below the Federal Reserve's 2 percent inflation target, but since early November the implied inflation rate has risen quite close to that inflation target. This indicates a growing confidence by financial market participants that the economy will successfully reach the Fed's 2 percent inflation target, and should average quite close to 2 percent inflation over the next five years.

The recent movement in financial market prices should provide greater confidence that the Federal Reserve is finally closing in on both elements of its dual mandate, and that an increased pace of the gradual monetary policy normalization in the United States is appropriate. This is particularly noteworthy considering that central banks in other developed countries are still easing monetary policy in attempts to reach their inflation targets.

The Labor Market Outlook

Figure 5 shows the path of two measures of unemployment – the U-3 and U-6 unemployment rates – since 2006. The widely reported and closely followed U-3 measure of unemployment was 4.7 percent in December. My own definition of full employment – meaning the unemployment rate associated with full employment – is 4.7 percent, so we have now in effect reached the level of unemployment that I think is likely to be sustainable in the long-run.

The U-6 measure of unemployment is a broader gauge that includes workers who are employed part time for economic reasons and potential workers who have become discouraged. The measure has fallen quite dramatically, to 9.2 percent, but is still somewhat above pre-recession levels. An open question is whether structural changes in the economy, including the increased use of contractors and part-timers in the so-called "gig" economy, are likely to impact whether we see a return to earlier levels of the U-6 measure.

One can see other indications that labor markets are continuing to tighten. **Figure 6** shows the unemployment rates since 2006 for those with a bachelor's degree or higher and those with only a high school diploma. For those with higher educational attainment, the unemployment rate is approaching the lows last seen prior to the recession. With the unemployment rate for this group at 2.5 percent, and with many jobs requiring higher educational attainment, it is fair to expect that we will begin to see pressures in labor markets for scarce talent.

Those with only a high school diploma have an unemployment rate of 5.1 percent, which is also slightly elevated relative to pre-recession levels. While there are clearly returns to higher educational attainment in terms of labor market outcomes, additions to the labor force for the higher-skilled positions will likely require more attention to workforce development and possibly more forms of encouragement to achieve higher educational outcomes.

Figure 7 shows the 12-month moving average growth in the labor force from 2006 to the present. The labor force is defined as the sum of those who are currently employed and those who are searching for employment (that is, are unemployed). Recently, increases in payroll employment have resulted in smaller declines in the unemployment rate because the U.S. has been experiencing relatively strong growth in the labor force. Indeed, an increase in the labor force is a potential benefit of relatively tight labor markets.

To look a bit further, **Figure 8** shows the 12-month moving average of entry and exit to the labor force as a percentage of the population.[1] The growth in the labor force has resulted from declining exits rather than entries – that is, the percent of the population exiting the labor force has declined more than the percent of the population entering the labor force. Given the demographic trends of a larger cohort of people reaching retirement age, and thus more likely to exit the labor force, this trend of declining exits is unlikely to continue to be a source of labor force growth. This in turn implies that, with sustained employment growth, the unemployment rate will likely decline faster than it has in recent months.

Turning to the wage implications, **Figure 9** shows growth in two measures of labor compensation from 2006. The first is average hourly earnings, from the payroll survey, which simply divides total wages paid by total hours worked. Because it is an economy-wide average, compositional changes in the labor force across industries and occupations, or across high- versus low-wage jobs will influence the growth rate in this measure. The second measure is the Employment Cost Index (ECI) for wages and salaries. Data for the ECI is generated by asking firms about the compensation they must pay for workers in specific occupations, so it can hold the occupational mix constant in a way that the average hourly earnings measure of wages cannot. Both series show that wages have been increasing over the past two years, consistent with strong labor market demand.

Overall, labor market data are consistent with tightening labor markets. With the unemployment rate near or below most estimates of full employment, and with wages continuing to increase, this part of the Federal Reserve's dual mandate – maximum sustainable employment – seems largely fulfilled.

The Inflation Outlook

Turning to the inflation side of the Fed's dual mandate, **Figure 10** shows total and core PCE inflation rates since 2006. Over the past year, total and core inflation have been increasing; however, both measures are currently below the Fed's inflation target of 2 percent – the level monetary policymakers associate with stable prices. My own forecast is for both measures to be at 2 percent by the end of 2017. While the Fed's inflation target is defined in terms of total PCE inflation, other measures of inflation that often anticipate the direction of total PCE inflation have also been trending up recently.

Figure 11 shows total and core CPI prices since 2006. CPI is focused on the basket of goods purchased by consumers,[2] and has increased roughly 0.3 percent faster than the PCE measure over the past 10 to 15 years.[3] Both measures have been increasing over the past two years.

Alternative inflation measures that try to capture the underlying inflation process by removing outliers are shown in **Figure 12**. The Dallas Federal Reserve Bank computes the trimmed-mean PCE. By removing the outliers, the series is less volatile – but again it has been increasing over the past two years, although it remains below the 2 percent inflation target. The Cleveland Federal Reserve Bank provides the trimmed-mean CPI. It, too, has been gradually increasing over the past two years.

Overall, the inflation indices provide a fairly consistent pattern of gradually increasing inflation rates. The combination of tighter labor markets and the gradual increases in inflation rates, measured in a variety of ways, should provide more confidence that the economy will attain the Federal Reserve's inflation target over the next year.

Implications for Monetary Policy

Figure 13 provides the estimates of the likely federal funds rate path from the June and December Surveys of Primary Dealers, and from Federal Reserve policymakers (FOMC participants). The dots are the median federal funds rate projections for year-end as provided by

FOMC participants in the Summary of Economic Projections (SEP) at the June and December FOMC meetings. Two observations stand out. First, over the past six months, both the primary dealers and the FOMC participants have seen conditions improve sufficiently to expect continued normalization of monetary policy. Second, market participants continue to expect less tightening than do FOMC participants.

My own view is that the SEP median forecast seems reasonable if we continue to see real GDP growing faster than the so-called "potential" rate. My own forecast is that we will achieve both elements of the dual mandate by the end of 2017 – and as a result, I believe that a still gradual but somewhat more regular increase in the federal funds rate will be warranted.

In addition to short-term interest rates, the Federal Reserve has a second policy tool at its disposal, the balance sheet, shown in **Figure 14**. The central bank's balance sheet has been roughly level over the past two years. With the federal funds rate expected to continue its gradual rise from the zero lower bound, the risk of returning to the zero lower bound should diminish. The FOMC has published a statement on its policy normalization principles and plans.[4] As part of the monetary policy normalization strategy, the FOMC should, of course, continue to consider whether it needs to maintain such a large balance sheet.

Concluding Observations

Given where it was in recent years, the economy has shown remarkable progress. We now are quickly approaching employment and inflation levels consistent with both elements of the Fed's dual mandate – price stability and maximum sustainable employment. I firmly believe that the aggressive policy actions taken by the Fed during the financial crisis and recession made a huge difference – our economy would not be as healthy as it is and we would thus not be near a tightening cycle now if we hadn't been so aggressive then. As a result, the U.S. is closer to achieving its goals for monetary policy than are most other developed countries. Looking ahead, I see the Federal Reserve as likely to continue to gradually normalize U.S. monetary policy, even as many other countries may need to continue to pursue more expansionary monetary policies.

Thank you for asking me to be with you today. Best wishes for a very good year in 2017.

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[1] As previously noted, the labor force is defined as the sum of those who are currently employed and those who are searching for employment (that is, are unemployed). Civilians 16 years and over who are not employed or unemployed are categorized as not in the labor force. For example, civilians 16 years and over who are without jobs but are not actively seeking work are considered not in the labor force. Labor force entries are flows into employment and unemployment from not in the labor force. Labor force exits are flows from employment and unemployment to not in the labor force. Other inflows and outflows are also included in this calculation of entries and exits. These include persons just turning 16, estimated deaths, and adjustments to population totals.

[2] The CPI is perhaps better known to the public, but its focus on out-of-pocket consumer expenditures makes it somewhat less comprehensive than PCE, which also includes purchases made on behalf of consumers – for example, by health-insurance companies.

[3] Over the last five years, it has increased only 0.1 percent faster.

[4] See https://www.federalreserve.gov/newsevents/press/monetary/20140917c.htm.