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"Exploring the Economy's Progress and Outlook"

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Federal Reserve Bank of Boston

South Shore Chamber of Commerce

Quincy, Massachusetts
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Good morning. I would like to thank Peter Forman and the members of the South Shore Chamber of Commerce for having me here today. 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).

Over the past year the United States economy has remained fairly resilient despite the economic "drag" emanating from overseas. Global concerns – including a more significant slowdown in China – caused some market volatility at the beginning of this year, and the United Kingdom's vote to leave the European Union has refocused attention on continued lethargic growth in Europe. In fact, the International Monetary Fund recently downgraded its growth forecast for the world economy. The expansion in many developed countries has remained so weak that their central banks have put in place even more stimulative monetary policies.

Despite these headwinds from abroad, labor markets in the U.S. continue to gradually tighten, and inflation is slowly returning to the Federal Reserve's 2 percent inflation target. In fact, it is quite possible that we will reach or even exceed full employment over the course of the next year.

Given how near the U.S. economy is to reaching the Federal Reserve's dual mandate from Congress (stable prices and maximum sustainable employment), it is reasonable to ask whether the current degree of monetary policy accommodation – historically low interest rates – remains necessary. My personal view, based on data that we have received to date, is that a reasonable case can be made for continuing to pursue a *gradual* normalization of monetary policy.

As usual, there are some conflicting signals in the economic data that came out this summer. For example, payroll employment has been quite strong, averaging 232,000 net new jobs per month over the past three months, and just over 200,000 per month over the past year.[1] What's more, that rate remains significantly higher than long-run labor force growth. Consistent with the tightening in labor markets, measures of wage and salary growth have been increasing somewhat, albeit from still relatively low levels.

In contrast, real GDP growth for the first two quarters has been disappointing, averaging around only 1 percent, well below the pace the Federal Reserve's policymakers were expecting when we first raised rates last December.[2] However, I would observe that at least part of this weakness reflects temporary inventory adjustments that are likely to be reversed in the second half of this year. While final sales (real GDP net of inventories) expanded 1.8 percent a quarter so far this year, real GDP was much weaker, which reflected a run-down of inventories. The combination of the relatively strong domestic demand and the restocking of inventories should provide a basis for growth to exceed 2 percent over the next two quarters. This will increase the risk that the unemployment rate will be pushed over time to a point below most estimates of full employment – an outcome that is likely to prove unsustainable over time.

Overview of Recent Data

Figure 1 shows the real GDP growth that economic forecasters participating in the Blue Chip forecast were predicting for the first two quarters of 2016, as of the middle of December 2015, and the actual results. Clearly, the first two quarters did not live up to the forecasts. The Blue Chip forecasters were expecting growth in the first two quarters to be comfortably above 2 percent, but as I noted a moment ago, actual growth fell short of that. The forecasts over-predicted the strength of growth in each of the first two quarters by more than 1 percentage point.

Figure 2 shows real GDP and real final sales growth in the first two quarters of this year. Real final sales give a better reading on the demand for goods and services in the U.S. because they exclude inventory fluctuations, which can affect GDP in the short term. The figure shows that inventories were a drag on GDP in the first half of the year as a sizable portion of demand was met by reducing inventories. Second-quarter real final sales growth was 2.4 percent, indicating that these inventory adjustments – rather than a weak underlying economy – explain much of the economy's apparent softness.

Figure 3 provides real final sales to domestic purchasers, which removes the impact of both net exports and inventories from the growth in real GDP. This represents the demand coming from U.S. firms, government, and consumers. Over the past two years, real final sales to domestic purchasers grew at a healthy 2.6 percent. So the data show that the domestic economy has been performing quite well despite the effects of a strong dollar and weak growth among our trading partners. I expect some continuing drag from foreign activity, but underlying domestic strength is likely to be sufficient to engender continued improvement.

Figure 4 shows several forecasts for the third quarter. Clearly forecasters are expecting third quarter growth to notch an increase. Both the August Blue Chip Forecast and the August Survey of Professional Forecasters predict growth well above 2 percent – and the "nowcast" statistical forecast by the Atlanta Federal Reserve Bank (GDPNow[3]) expects an even stronger third quarter.

Overview of Labor Market Data

Payroll employment growth of late can be described as somewhat choppy, as depicted in **Figure 5**. We saw a very weak payroll employment report in May, followed by two fairly significant increases in payroll employment in the June and July reports. With last Friday's report for August payroll employment showing an increase of 151,000 jobs, average monthly payroll growth is 232,000 jobs over the past three months and 204,000 jobs over the past twelve months. Either figure is well above the 80,000 to 100,000 jobs a month that monetary policymakers estimate are needed just to keep the unemployment rate constant over time.

In sum, the data we have seen over the summer continue to reflect a tightening of the U.S. labor market. The national unemployment rate shown in **Figure 6** is now 4.9 percent. As the chart shows, the unemployment rate has declined steadily over the past four years. Policymakers' views of the unemployment rate that will prevail in the long run – indicated by the central tendency of FOMC participants shown in the chart shading – were 4.7 percent to 5 percent at the June FOMC meeting. So we are currently at or close to the estimates of full employment held by FOMC participants.

Looking forward, most forecasters expect that labor markets will continue to tighten and the unemployment rate will continue to fall. The Blue Chip consensus forecast for the unemployment rate in the fourth quarter of this year is 4.7 percent (see **Figure 7**), which is the same as my own forecast for the end of this year, and is equal to my estimate of full employment. The Blue Chip consensus forecast for the unemployment rate in the fourth quarter of 2017 is 4.5 percent, somewhat below the FOMC participants' consensus view of the long-run unemployment rate. The figure shows that by the fourth quarter of 2017, the average of the 10 highest unemployment rate forecasts among the roughly 50 forecasters in the Blue Chip survey is still below 5 percent.

As the labor market has tightened, we have seen modest evidence of the upward pressure on wages and salaries that would support inflation reaching the Federal Reserve's 2 percent goal. **Figure 8** provides wages and salaries from the employment cost survey and average hourly earnings from the payroll employment survey.[4] The series have been gradually rising over the past two years, although they still remain at levels that are low by historical standards. However, modest increases in wages and salaries seem to me consistent with tightness in labor markets beginning to appear more strongly in the wage data.

Risks to the Outlook

One potential concern is that while our best guess for the economy is consistent with continued improvement, the economy faces particularly risky global conditions. And this adds an element of risk to actions that would further normalize monetary policy. Some observers argue that the fragile global economic situation could justify an even more patient U.S. monetary policy, simply on risk management grounds.

In this debate I would offer the observation that, while it is important to acknowledge the presence of global risks, market indicators have so far provided little evidence of *outsized* risks. For example, **Figure 9** shows the VIX market volatility index.[5] While the index was elevated at the beginning of the year in response to concerns related to China and more recently in June reflecting concerns about the potential impact from the Brexit vote, the current value of the index is near its low for the year. Given the number of global events over the past nine months, the VIX highlights the resilience of the U.S. economy in the face of potential shocks from abroad.

If an elevated risk of a severe financial shock existed, one might expect it to be reflected in stock prices, particularly prices in those markets that might be most sensitive to global shocks. However, **Figure 10** shows that the S&P has more than recovered from its sharp declines earlier in the year. Similarly, emerging market stock prices have made very substantial improvements over the same period. The same cannot be said of the Euro STOXX index, which has not recouped its losses of earlier in the year. This likely reflects the ongoing weakness in the Euro area. The figure suggests that, with the exception of Europe, the potential concern with fragile global economies does not seem to be strongly priced into financial assets, at least to date.

However, not all the risk is on the downside. It is important to note that an overheated economy – one that significantly exceeds sustainable output and employment – would pose risks to maintaining full employment over time. Here history is instructive – **Figure 11** shows the unemployment rate and the effective federal funds rate for the past 50 years, along with recession shading. The chart suggests that monetary policy has not been a precise tool, capable of gently guiding the economy back to full employment in periods when we have exceeded sustainable, full employment. As shown, the federal funds rate frequently peaks prior to a recession as the economy threatens to overheat, with unemployment potentially dipping below its long-run sustainable rate. The figure suggests that the calibration of monetary policy during such a tightening cycle is difficult: The U.S. economy often slows down more than is optimal, frequently resulting in a recession.

This historical pattern illustrates the difficulty of slowing the economy to a sustainable rate without going too far and causing a recession. This problem could be compounded if delays in tightening earlier in the cycle lead to conditions that require more rapid increases in interest rates later in the cycle, risking a more pronounced slowing in growth and rise in unemployment.

A second risk of waiting too long to tighten is that some asset markets become too ebullient. **Figure 12** shows that real commercial real estate prices have risen quite rapidly over the past five years, particularly for multifamily properties. Because commercial real estate is widely held in the portfolios of leveraged institutions, commercial real estate cycles can amplify the impact of economic downturns as financial institutions need to write down the value of loans and cut back on lending to maintain their capital ratios.

In sum, the risks to the forecast are becoming increasingly two-sided, in my view. Weakness emanating from abroad poses short-term downside risks to the domestic U.S. economy. However, the U.S. economy has been relatively resistant to shocks from abroad of late, as evidenced recently by the aftermath of the Brexit vote. Yet as I have described today, there are also longer-term risks from significantly overshooting the U.S. economy's growth – given the bluntness of monetary policy tools, and the possibility of growing imbalances in some asset classes.

Concluding Observations

For some time now, we at the Federal Reserve have taken a very patient approach to monetary policy normalization, reflecting the low-inflation environment and more recently the global shocks experienced over the past year. However, with the current degree of monetary policy accommodation, the U.S. economy continues to grow fast enough to yield continued improvement in labor markets. That degree of accommodation increases the chances of driving the core inflation rate closer to the Federal Reserve's 2 percent target, but it also increases the chances of overheating the economy.

So if we want to ensure that we remain at full employment, gradual tightening is likely to be appropriate. A failure to continue on the path of gradual removal of accommodation could shorten, rather than lengthen, the duration of this recovery.

Thank you.

[1] Job growth over the last three months has averaged 232,000 jobs per month. Over the last six months the average is 175,000 jobs per month. Year to date in 2016, the average is 182,000 jobs per month. And the average over the last 12 months is 204,000 jobs per month.

[2] Real GDP for the first two quarters has been disappointing, growing only 0.8 percent in the first quarter and 1.1 percent in the second quarter.

[3] https://www.frbatlanta.org/cqer/research/gdpnow.aspx?panel=1

[4] In **Figure 8** wages and salaries of private industry workers are derived from the National Compensation Survey and average hourly earnings from the Current Employment Statistics Survey (CES; Establishment Survey).

[5] The VIX – The CBOE (Chicago Board Options Exchange) Volatility Index – is a measure of market expectations of short-term stock-market volatility based on the implied volatility of Standard & Poor's 500 stock index option prices.