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"Observations on Labor Markets"

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New Hampshire and Vermont Bankers Associations Annual Conference

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Thank you for inviting me to speak today at the New Hampshire and Vermont Bankers Associations Annual Conference.

As always, the views I express today are my own, not necessarily those of my colleagues on the Board of Governors or the Federal Open Market Committee (the FOMC).

The economy has been on the mend and the unemployment rate has declined almost everywhere. You can certainly see this in Vermont, where the 3.7 percent unemployment rate is about where it was before the recession began. New Hampshire's

unemployment rate is also well below the national unemployment rate, at 4.4 percent, but is still above where it was in 2006.

Despite the improvement in labor markets over the past year, today's employment report was somewhat disappointing, with the increase in payroll employment of 142,000 jobs being below expectations, and the unemployment rate declining to 6.1 percent but in part because 64,000 Americans dropped out of the labor force. And while the number of Americans working part time for economic reasons declined somewhat, there are still 7.3 million Americans working part time for economic reasons.

The influence of labor market slack, broadly construed, on monetary policy decisions is the main theme of this talk. My primary message is that significant slack remains, and thus monetary policy needs to be patient in removing stimulus.

In addition, given the uncertainties surrounding our forecasts of the pace of labor-market improvement and the degree of remaining slack, monetary policy has to be determined largely by incoming data and the signals that data provide about the health of labor markets. If the economy disappoints we should be in no rush to raise short-term rates, but if the economy improves more quickly than anticipated we should raise short-term rates earlier. Thus, we should be moving away from providing date-based forward guidance, and instead focus on what incoming data tell us about reaching full employment and 2 percent inflation within a reasonable time period.

Monetary Policy and Forward Guidance

While the unemployment rates in New Hampshire and Vermont remain well below the national average, the significant declines in measures of national labor market slack have raised questions of how and when central bank policymakers should normalize monetary policy.

Indeed, market participants and financial prognosticators have begun to fixate on potential calendar dates for when the Federal Reserve will raise short-term interest rates. Let me say that I will not be providing any such guidance today. In fact, I actually hold the view that as we approach levels of unemployment that many consider "full employment," the Fed should no longer issue guidance on the approximate timing of any monetary policy changes.

I do not intend this to reduce transparency in monetary policymaking. Rather, I simply want to acknowledge that any reference to calendar dates has the potential to be inaccurate. The date of "liftoff" from near-zero short-term rates is highly dependent on how the economy actually evolves – in other words, is going to be tied to the current and expected path of inflation and employment. We are getting close enough to targets that, given the uncertainty around forecasts of these variables, incoming data that cause Federal Reserve policymakers to significantly change our outlook for the economy will shift any expected lift-off date forward or backward in time. So, again, reference to calendar dates as we approach targets has the potential to be inaccurate.

This appropriate dependence on economic conditions takes on more weight when one recognizes that many of the variables we focus on have behaved differently than expected over the past two years. For example, real GDP over the past two years has been weaker than most forecasters expected, unemployment has fallen faster than expected (particularly given the disappointment in real GDP), and many forecasters

expected the inflation rate to reach the Federal Reserve's target of 2 percent¹ more quickly.

Notably, while some analysts are quite willing to predict precise dates for lifting short-term rates, surveys of such lift-off dates actually provide a very wide range of possibilities. This, of course, is consistent with the uncertainty associated with predicting economic outcomes. Indeed, **Figure 1** provides a snapshot of the primary dealers' expectations for when the first rate increase will occur. While the consensus is centered on the middle of next year, there are significant probabilities attached to the first rate hike being earlier or later than the middle of next year. This wide distribution of predictions presumably reflects both uncertainty about the forecast for the economy, and different views about how monetary policy will respond to actual conditions.

Critical to any decision on lifting short-term rates will be the matter of how much labor market slack exists currently, and how long before the economy reaches what we would consider to be full employment. While my remarks will be focused on labor markets, it is important to remember that labor market slack (which dampens wagegrowth pressure) is one reason that inflation has remained persistently below the Federal Reserve's 2 percent inflation target since the financial crisis. As labor markets tighten, we would expect the inflation rate to approach the 2 percent inflation target more rapidly, as well.

The Economic Outlook

Figure 2 provides private-sector forecasts for the path of the unemployment rate, from two groups of economic forecasters – the Blue Chip economic forecast and the

Survey of Professional Forecasters. The forecasts are quite consistent with each other (due in part to some overlap between survey participants), with both predicting a gradual reduction of the unemployment rate from the 6.1 percent level we currently see nationally as reported in the August employment report. For the Blue Chip forecast, which extends through 2015, the forecasters on average expect that the unemployment rate will be 5.5 percent at the end of next year.

The horizontal line at 5.25 percent indicates the Federal Reserve Bank of Boston's estimate of the unemployment rate consistent with full employment. I would note that the Boston Fed's estimate is at the low end of forecasts for FOMC participants, where the central tendency for the unemployment rate in the long run is from 5.2 to 5.5 percent, as shown in the June Summary of Economic Projections.²

Unfortunately, the forecasts shown in **Figure 2** only go through the end of next year. If one assumes that the unemployment rate will continue to fall at the same pace in 2016 as it is expected to fall in 2015, both forecasts would reach the Boston Fed's 5.25 percent estimate of full employment around the middle of 2016. As I've said on many occasions, I personally do not expect that it will be appropriate to raise short-term rates until the U.S. economy is within one year of both achieving full employment and returning to within a narrow band around 2 percent inflation. Again, that is my personal view. And, if one were to also assume that tightening would begin roughly one year before reaching full employment and the 2 percent inflation target, then one could say that the primary dealers' estimates of a rate rise bunched around mid-2015 seem roughly consistent with the forecasts for unemployment in **Figure 2**.

However, I would reiterate that there is significant uncertainty surrounding these forecasts. We see this more clearly in **Figure 3**, which shows not only the average of all the forecasts in the Blue Chip survey, but also the average of the 10 lowest and 10 highest forecasts for unemployment among the more than 50 forecasters in the survey. The average of the 10 lowest forecasts for the unemployment rate dips below 5.25 percent by the end of 2015, while the average of the 10 highest forecasts declines only to 5.8 percent at the end of 2015, still well above the 5.25 percent line.

Another measure of the *uncertainty* surrounding these private-sector forecasts is represented in **Figure 4**, which shows the unemployment path that was being forecast by the Blue Chip survey in March 2013 (when the 2014 quarterly forecast first became available). At that time, the average forecast of unemployment for the second quarter of 2014 was 7.3 percent. The consensus (average) forecast was more than a percentage point too high. Even the 6.9 percent average of the lowest 10 forecasts was still well above the realized rate of 6.2 percent for the second quarter of 2014 and 6.1 percent for August 2014, just released today. Clearly, most forecasters expected a much more gradual improvement in the unemployment rate than actually occurred.

Given that economic forecasters have expected a much slower decline in the unemployment rate, we should ask ourselves if these errors of overestimating unemployment rates are likely to persist. The answer, in my view, is not necessarily.

I say this because one reason for the large error in estimating the decline in the unemployment rate has been the unexpectedly slow growth of the labor force. Everyone knew that the aging of the Baby Boom generation would slow down this growth rate.

But it appears that some people who were expected to stay in the labor force became

discouraged with their potential job prospects and withdrew, while others never joined at all. However, as labor markets tighten, the job prospects for these discouraged workers should improve. It is likely that some of the new jobs opening up will be filled by individuals not currently counted in the labor force.³

Indeed, in terms of monthly gross flows, the number of people moving from *out* of the labor force into employment is considerably larger than the number moving from being *unemployed* (but in the labor force) to employed. In this way, as labor markets tighten, the unemployment rate may decline more slowly than its recent trend – even with growth in payroll employment continuing at the levels seen in the first half of this year.

This also highlights why the traditional unemployment rate may not, by itself, give a full picture of labor market conditions.

Alternative Measures of Labor Market Slack

Figure 5 provides some alternative measures of labor market slack in addition to the traditional, widely reported "U-3" civilian unemployment rate.⁴ The U-4 measure includes the unemployed workers counted in the U-3 plus so-called "discouraged workers." Discouraged workers have looked for work in the past year and are available to work, but have stopped looking because they believe there are no jobs available for their skill sets.

The U-5 measure adds so-called "other marginally attached" workers to the amount of unemployed and discouraged workers. Like discouraged workers, these additional marginally attached workers have also said they want a job, are available for work, and have looked for work in the past year – but they are no longer looking, largely

because they believe there are no jobs available for the schedules or in the locations they can work.

And the broadest measure, U-6, includes unemployed workers, discouraged workers, other workers marginally attached to the workforce, and workers who are part-time for economic reasons. ⁷ The latter means that they are working, and are available to work full time, but they are working part-time because their hours have been cut back or they have been unable to find a full-time job.

Looking at the shaded recession periods, you see that the more widely-cited U-3 measure of unemployment, as well as the broader measures of labor market conditions, rose much more during the last recession than in the previous one – and still remain well above pre-recession levels.

Of course, whether this elevated unemployment rate reflects the business cycle or a more lasting *structural* shift is a matter of debate among economists and others. While my analysis generally suggests that a sizable fraction of the increase in unemployment should be attributed to cyclical causes, I acknowledge it is possible that the broader measures also reflect increasing *structural* problems in the labor market – and also, importantly, that problems that were initially cyclical may have become more structural in nature during a painfully slow recovery. The implications would be more people permanently withdrawing from the labor force or working part-time when they would prefer full-time work.

Allow me to now show you some analysis that I consider illuminating as I study conditions in the labor market.

Figure 6 shows how states look when plotted in terms of the U-3 rate (the horizontal position) and workers part-time for economic reasons (the vertical position), both compared to a pre-recession average (calculated from 2005 to 2007). A large number of states are clustered in the upper right hand quadrant of the figure, indicating that *both* U-3 unemployment and those who are part-time for economic reasons remain well above levels from before the recession. There is also a clear trend in the data, where states with U-3 unemployment well above that pre-recession average tend to have higher part-time workers relative to pre-recession levels. I would also point out that many of the states that have very high U-3 unemployment and workers part-time for economic reasons are states that were disproportionately impacted by the financial crisis (states such as Arizona, Nevada, and Florida).

We should note that the line you see fit to the data points does not go through the zero origin on the vertical scale, giving some quantitative evidence to suggest that even if a state returned to its pre-recession level of unemployment, one would still see somewhat higher percentages of workers who are part-time for economic reasons.

Almost half the U.S. states are close to or below their pre-recession U-3 average – that is, within a percentage point of, or below, the y-axis. However, there is less bunching near or below zero for those part-time for economic reasons – that is, close to or below the zero horizontal axis on the chart. In fact, only three states are now below their pre-recession level for those part-time for economic reasons – North Dakota, Alaska, and Arkansas.

The table in **Figure 7** summarizes the data in the previous figure. There are eight states that now have U-3 unemployment below the average prior to the recession,

compared to the three states with workers part-time for economic reasons below prerecession levels. If one looks at the number of states below or within one percentage point of the pre-recession average, there are 22 states when using the U-3 measure, but only 13 states when using part-time for economic reasons.

My next two figures show how the share of people working part time for economic reasons has changed since 2006 – before the crisis – for different age groups.

Figure 8 presents the younger age groups – 20 to 24, and 25 to 34. In the 20 to 24 age group, the share of workers part-time for economic reasons rose dramatically relative to 2006 levels. While there has been some decline relative to 2006, workers part-time for economic reasons in this age group remain a much higher share than pre-recession levels. The right side of the figure shows that this is also true, but much less dramatically so, for the 25 to 34 age group.

Figure 9 shows that for older age groups (35 to 44, and 45 to 54), the part-time for economic reasons experience compared to pre-crisis 2006 is also much less elevated. While the share of part-time for economic reasons is still higher than the 2006 average, it is much less dramatic than for the younger cohorts.

Figure 10 shows the actual percentages of workers part-time for economic reasons in 2006 and in 2014, by age cohort. For the two youngest age groups, the percent part-time for economic reasons remains quite elevated relative to 2006 and relative to other age cohorts. One might have thought that many in those younger age cohorts are recently educated and mobile, so that as we experience tighter labor markets it might become much less common for them to work part time for economic reasons. However, it is certainly possible that there has been a structural change in labor markets that makes

it more difficult for those in younger age groups to get full-time employment. While I expect that much of this pattern is a function of cyclical slack in the labor markets, the trends in those working part-time for economic reasons in younger age groups is an important dynamic worthy of further study.

Concluding Observations

In summary and conclusion, I would note that significant excess capacity remains in labor markets. Today's somewhat disappointing employment report, with only gradual improvement through creation of 142,000 jobs in July, highlights that the time it will take to return to full employment remains highly uncertain. However, a return to full employment could occur within a two-year horizon, if the economy continues to gradually improve. Of course, the degree of uncertainty surrounding such forecasts readily admits the possibility of a return to full employment several quarters earlier or later.

One issue that has been raised by some observers is a view that labor markets have tightened sufficiently to make *inflation* more of a near-term concern. However, **Figure 11** shows that total compensation, and wages and salaries, have all been growing quite slowly. The current growth rate in compensation remains below most estimates of the standard benchmark of real labor productivity growth plus 2 percent inflation.

In sum, while we have approached full employment more rapidly than many expected, substantial labor market slack remains. In addition, PCE inflation remains at only 1.6 percent, with no sign of significant wage pressures in labor markets. The lack of

wage pressures suggests that we are not yet near full employment, and that there is no upward pressure on inflation coming from wages.

As a consequence of all this, and given the evidence that the broader measures of unemployment are being driven by cyclical realities, it seems to me appropriate for monetary policy to continue to be patient – in the interest of ensuring that the economy reaches full employment and the 2 percent inflation target as quickly as possible.

Thank you.

¹ Using the PCE or Personal Consumption Expenditures price index.

² See http://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20140618.pdf.

³ I recommend "Labor Market Exit and Re-Entry: Is the United States Poised for a Rebound in the Labor Force Participation Rate? by Daniel Cooper and María José Luengo-Prado (http://www.bostonfed.org/economic/current-policy-perspectives/2014/cpp1402.htm).

⁴ I discussed this topic at length earlier this year: http://www.bostonfed.org/news/speeches/rosengren/2014/020614/index.htm.

⁵ As a percent of the labor force plus discouraged workers.

⁶ As a percentage of the labor force plus workers that are marginally attached to the labor force.

⁷ As a percentage of the labor force plus workers that are marginally attached to the labor force.