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President & Chief Executive Officer
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Presentation to the
Greater Concord Chamber of Commerce

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Good afternoon. Thank you very much for inviting me to Concord, New Hampshire to talk about 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 addition to this discussion, I am also looking forward to a meeting this afternoon about the Boston Federal Reserve Bank's work on post-industrial cities[1] and how that work might be beneficially applied in New Hampshire.

I would also like to offer very special thanks to Richard Uchida for extending the invitation to be here today. I have gotten to know Richard through our work on the Colby College Board of Trustees, and I know how dedicated he is to so many legal, civic, and charitable endeavors. His public service is something I greatly admire.

Last Friday's employment report for April was one of the first major indicators of how the economy is unfolding in the second quarter. Employers added 160,000 new jobs in April. While this was a bit below market expectations, and below the 203,000 average monthly gain for the first quarter, it still reflects what I would consider to be relatively strong payroll employment growth. Given broad demographic trends, like the slowing of population growth and increased baby boomer retirements, normal or "trend" payroll employment growth is now between 80,000 and 100,000 jobs a month.[2]

As a result, if April's payroll employment growth continues, it should be strong enough to bring some further tightening of labor markets. With the U.S. unemployment rate at 5 percent in April, we remain only somewhat above my estimate of "full" employment, which is 4.7 percent unemployment.

I would add that other elements of the jobs report were positive. Average hourly earnings increased by 2.5 percent over the past year, and there was an increase in the workweek. Somewhat higher wages and hours worked will add to household income, and so should be positive drivers of future consumption.

First-quarter GDP growth, at only 0.5 percent, was weaker than most economists expected. But most private forecasters do not expect such weakness to persist. And after concerns about foreign growth at the turn of the year impacted U.S. and foreign stock markets

through mid-February of this year, markets have since rebounded, both here and abroad. In addition, the dollar has recently depreciated on a trade-weighted basis, and the economic indicators for many of our trading partners have come in stronger than expected. For example, growth in the Euro area in the first quarter was actually faster than in the United States. These developments bode well for export-dependent U.S. industries. Furthermore, domestic demand is starting to rebound as auto sales, which had dipped a bit in March, have returned to their mid-2015 levels.

All this suggests that, with diminished headwinds from abroad and consumers responding to growing household income and wealth, consumer spending should improve over the course of the second quarter. Of course at this point, this is still a forecast, as we currently have very little by way of actual spending data for this quarter.

However, the limited second-quarter data to date are consistent with my expectation that growth in real GDP in the second quarter will be somewhat above my estimate of the so-called "potential" growth rate for the economy – about 1.75 percent in my analysis. The early data are also consistent with some continued gradual improvement in labor markets and with inflation moving gradually closer to the Federal Reserve's 2 percent target for inflation.

If the economic data that come in over the course of this quarter confirm these trends, it will be appropriate to continue the gradual normalization of monetary policy that began with the initial increase in short-term interest rates last December. In my view, the market remains too pessimistic about the fundamental strength of the U.S. economy, and the likelihood of removing monetary accommodation is higher than is currently priced into financial markets based on current data.

Exploring Recent Economic Data

Allow me to walk you through some of the analysis that underpins my views and expectations.

Figure 1 provides the quarterly pattern of real GDP over the past two years. The first-quarter data are shown in red. As I mentioned a moment ago, first-quarter real GDP for this year was a disappointing 0.5 percent. Since 2014, first-quarter real GDP growth has tended to be disappointing, but over the last two years it has provided a poor signal of subsequent quarters, which experienced stronger growth. This pattern may partly reflect weather anomalies, or it may suggest imperfect adjustments for changing seasonal patterns in the data. Still, it will be important to obtain more data on spending to determine whether it is likely that the economy will grow above potential.

An important area of weakness in first-quarter real GDP was consumption, which accounts for approximately two-thirds of real GDP. Consumption grew 1.9 percent at an annualized rate in the quarter. This moderate pace is somewhat surprising, given the progress in the usual supports for consumer spending during the quarter. By the end of the quarter, stock prices had recovered, and housing prices rose, as did personal income, driven in part by gains in payroll employment. Most forecasters expect these relatively strong fundamentals to spur consumption, a key driver for most of their forecasts. Without strong consumption, most forecasts look decidedly weaker.

While we have relatively scant data so far on second-quarter activity, **Figure 2** provides some reassuring data for auto sales – which are released with a very short time lag. The last two

months of data are shown in red. Fortunately, the sizable decline in March did not persist, as auto sales rebounded, although they are still below levels seen earlier this year.

The most important second-quarter data point we have in hand is last Friday's employment report, which indicated that April payroll employment grew by 160,000 jobs, as shown in **Figure 3**. While roughly the same as the growth in January, this was below the average monthly increase in the first quarter. However, these data still reflect relatively robust employment growth at a time when the U.S. economy is close to what most economists consider full employment.

In fact, as we approach full employment, we expect employment growth to moderate toward its long-run sustainable growth rate – a rate that will neither raise nor lower the unemployment rate. Federal Reserve economists currently estimate that rate, based on demographic and population data, to be about 80,000 to 100,000 jobs per month. So, while the April jobs growth was below market expectations, it remained strong enough to continue the gradual improvement in labor markets.

Furthermore, other data in the employment report were even more positive. While the official, widely reported U-3 measure of the unemployment rate remained the same as in March, at 5 percent, the broader U-6 rate (which includes the unemployed, as well as people "marginally attached" to the labor force, and people employed part time for economic reasons[3]) declined somewhat further to 9.7 percent.

As shown in **Figure 4**, the U-6 unemployment rate was over 12 percent at the beginning of 2014. The decline that has taken place since then reflects continued reductions in the number of workers employed only part time for economic reasons, and also the trend of more so-called

discouraged workers finding work over the past two years. The spread between U-6 and U-3 is one of the major reasons for tightening monetary policy only gradually even though we are relatively close to full employment, with more workers being drawn into full-time employment as labor markets improve.

Another positive effect of further gradual tightening of labor markets is that over time, tighter labor markets should lead to higher wages and salaries. **Figure 5** provides some evidence that we are beginning to see a tentative upward trend in average hourly earnings. Over the past year, average hourly earnings have risen about 2.5 percent, which represents a gradual increase from the 2 percent pace we had seen in earlier years.

Figure 6 shows there has also been a somewhat positive trend in the rate of inflation, which had been extremely subdued. Over the past year, inflation – measured by the Core Personal Consumption Expenditures Price Index, or Core PCE – has averaged 1.6 percent. This is somewhat higher than the 1.3 to 1.4 percent that we were averaging throughout 2015. While still below the 2 percent target set by the Federal Reserve as an optimum level of annual inflation, the most recent data hint at a gradual move toward that target – a trend that was not evident last year.

So, while it is still early in the quarter, it appears that the economy is continuing to gradually improve. We are adding jobs faster than trend, broader measures of unemployment have continued to tighten, and there has been a welcome upward trend in both wages and prices. And while we have limited spending data for the quarter, the data we do have seem consistent with growth above potential.

Risks Associated with Leaving Rates Too Low for Too Long

I believe that one of the benefits of our current accommodative monetary policy, even as we approach full employment, is that it fosters continued gradual improvement in labor markets. As I have noted in the past, it is quite appropriate to probe on the natural rate of unemployment to see how low it might be, given the benefit to workers. We have seen workers rejoin the labor force, many of them previously having given up looking for work.

However, there can be potential costs to accommodation if rates stay too low for too long. One cost involves the potential of very low interest rates encouraging speculative behavior. One area where I have some concern in this regard is the commercial real estate market. Let me walk you through some of the numbers that I find illuminating.

Figure 7 shows commercial real estate prices for four broad property types. As labor markets have improved and vacancy rates have declined, it is not surprising that there has been some appreciation in commercial real estate prices. For apartments, prices have increased – as many potential homebuyers have chosen to rent rather than own, presumably chastened by the experiences of many homeowners during the financial crisis, or constrained by stricter requirements for down-payments and other mortgage qualifications. However, prices now exceed the peaks reached prior to the financial crisis, and are well above the levels reached in 2005 as real estate prices were beginning to accelerate before the financial crisis.[4]

While **Figure 7** reflects national commercial real estate prices, regional indices show that prices have been rising particularly quickly on both coasts. Certainly in Boston, one of the relatively hot commercial real estate markets, the higher prices for commercial real estate are readily apparent.

Figure 8 shows real multifamily residential mortgage growth from 1976 to 2015. Growth in mortgage debt on multifamily properties is up sharply from lows reached in this cycle in 2010. In the most recent quarter, multifamily mortgage growth was just shy of the pre-recession peak.

We care about potentially inflated commercial real estate prices because they might risk a bout of financial instability. History shows that most periods of serious financial instability involve a scenario in which debt is high relative to a volatile underlying asset, and the value of the asset subsequently declines. These declines not only create problems for the owners of the asset (in this case, property), but also for the lenders – who may end up acquiring the asset in the event of default. Often these lenders are highly levered institutions.

In fact, this exact scenario played out in New England in the late 1980s and early 1990s, resulting in slumping real estate prices, failing financial institutions, and broader problems of credit availability for borrowers (both individuals and firms) that were dependent on financial institutions for loans. Given that history, it is important that we take actions early enough to avoid a repetition of that experience.

Potential concerns surrounding commercial real estate led to a recent Interagency Statement on Prudential Risk Management for Commercial Real Estate Lending (SR 15-17)[5] that, along with the 2006 Interagency Guidance on Concentrations of Commercial Real Estate Lending (SR 07-1),[6] emphasized the need for exposure thresholds, increased monitoring, and prudent risk-management practices. While this guidance applies to regulated banks, it is notable that commercial real estate loans are also being provided by non-bank lenders (and foreign investors).

In sum, one potential cost to keeping rates too low for too long is that doing so might encourage excessive risk-taking in commercial real estate – a sector likely to be influenced by low borrowing costs.

A second possible cost of keeping rates too low for too long relates to the limits we see in monetary policy's ability to "fine tune" the economy. Consider **Figure 9**. Once unemployment has reached its low point in the economic cycle, it is unusual for it to proceed smoothly back to the natural rate. The red highlighting indicates the first time that the unemployment rate rises by 0.4 percentage points after hitting a cyclical low. There are no episodes in which unemployment rose a bit and remained stable at its natural employment rate. Instead, relatively soon after the periods shown here with red highlighting, unemployment rises significantly – that is, we experience a recession, as indicated by the gray shading.

The chart strongly suggests that it has proven difficult to calibrate policy so as to gradually increase the unemployment rate, gently nudging it back toward full employment. The lesson is that policymakers should avoid significantly overshooting their best estimates of the natural rate of unemployment.

Today, the unemployment rate is still somewhat above my estimate of the natural rate, 4.7 percent. But waiting too long to have more normalized rates risks possibly overshooting on the unemployment rate, and needing to tighten more quickly than would be desirable.

Concluding Observations

In summary and conclusion, I would note that the economy has continued to improve gradually. While it has been a slow, methodical recovery from the Great Recession, it is important to recognize that we are approaching full employment, and getting closer to the Federal Reserve's 2 percent target for inflation. The real (inflation-adjusted) federal funds rate remains quite stimulative, which is unusual for an economy that is near both of the Federal Reserve's dual mandate goals (stable prices, which we target as 2 percent inflation, and maximum sustainable employment).

If the incoming economic data continue to be consistent with gradual improvement in labor markets and inflation getting closer to target, the Fed should be ready to gradually normalize interest rates, perhaps at a pace not currently anticipated by the federal funds futures market, as I have noted in other talks.[7]

Of course, there is always the potential for disruptions from abroad or at home that could impact the U.S. economy. However, such concerns are only pertinent if they materially change the outlook for the U.S. economy.

All in all, should incoming economic data confirm that we continue to make progress on both inflation and labor markets, I believe the Federal Reserve should continue with the gradual removal of monetary policy accommodation.

Thank you.

[1] See http://www.bostonfed.org/workingcities/about/research.htm#resurgent

[2] See this example of research looking at sustainable payroll employment growth, that captures how much payrolls would increase reflecting population and demographic changes: https://www.chicagofed.org/publications/chicago-fed-letter/2013/july-312

[3] See http://www.bls.gov/news.release/empsit.t15.htm

[4] If one looks at capitalization rates, which would also incorporate the rising rents over the period, the rates are now low by historical standards.

[5] See https://www.federalreserve.gov/bankinforeg/srletters/sr1517.htm

[6] See https://www.federalreserve.gov/boarddocs/srletters/2007/sr0701.htm

[7] See http://www.bostonfed.org/news/speeches/rosengren/2016/041816/index.htm and http://www.bostonfed.org/news/speeches/rosengren/2016/040416/index.htm.