Good morning, and thank you for inviting me to speak with you. I think it’s fair to say that the subject of my remarks today, the Federal Reserve’s interest rate policy, has received relatively prominent media attention in recent months. But the current setting of the Fed’s policy rate dates back to the end of 2008, when the financial turmoil was worsening and the recession was deepening. That’s when the Federal Open Market Committee (FOMC) set a target range for the federal funds rate of between zero and 25 basis points. With short-term interest rates reduced to near zero and inflation of at least 1 percent since then, real, inflation-adjusted interest rates have been negative for the better part of six years.

Following other recent recessions, the Fed has typically raised interest rates within a few quarters of the end of the contraction in economic activity.1 In contrast, the Great Recession ended in the second quarter of 2009, and while many initially expected rates to rise again within a couple of years, we are now entering the seventh year of what seems like an epic waiting game.

The title of my talk today is “The Case Against Further Delay.” As that title suggests, I plan to review the main reasons to begin raising rates sooner rather than later. As you may know, the FOMC is scheduled to meet the week after next, and I expect the Committee to consider fully both the arguments for and against further delay. Earlier this year I said publicly that I thought the case for raising rates was strong, and I still think that’s true. But I should emphasize that I will not make a final decision on the question until I have had the benefit of discussions with my colleagues at the upcoming meeting and have reviewed the additional data we will receive between now and then. I should also emphasize that, as always, I am speaking for myself and the views expressed are not the official views of the FOMC.2

**Consumer Spending Has Accelerated**

In my view, the most significant facts supporting an interest rate increase are related to household expenditures. As I’m sure a room full of retailers is well aware, consumer spending plays a major role in our economy, constituting more than two-thirds of our nation’s GDP. Following the end of the recession, growth in real personal consumption expenditures was relatively slow as households repaired their balance sheets while coping with weak labor markets. After an initial post-recession rebound, consumer spending growth averaged less than 2 percent at an annual rate for several years. In 2014, however, household spending accelerated, averaging over 3 percent for the year, only to fall back to a slower pace early this year. But that first quarter slowdown now seems largely attributable to temporary factors, such as unusually severe winter weather in many areas of the country. Spending growth has picked up again since then, growing at a 3.1 percent annual rate over the last three months.
Household spending growth is fueled by household income growth, both current and anticipated, and real income has registered significant gains since the end of the recession, driven in part by steady employment growth since 2011. I’ll have more to say about jobs in a few minutes, but let me just say now that I believe improvements in the labor market are likely to continue to fuel healthy growth in consumer spending at between 2 ½ and 3 percent per year.

What is the link between consumer spending growth and monetary policy? As I noted at the outset, with the federal funds rate near zero and inflation running between 1 percent and 2 percent, real short-term interest rates — that is, inflation-adjusted interest rates — have been negative for most of the past six years. Conceptually, the real interest rate is the price at which people can exchange purchasing power today for purchasing power in the future. This price should depend on the relative supply of and demand for goods today and goods in the future. In general, this suggests a connection between real interest rates and the expected growth of consumption of goods and services: Higher growth should be associated with higher real rates. While this connection isn’t always tight in the data, the logic strongly suggests that a negative real interest rate is unlikely to be appropriate for an economy with persistent consumption growth at the rate we are now seeing.

Some economists argue that a secular downward trend is affecting real interest rates, driven by lower productivity growth and increased demand for the safety of U.S. Treasury securities. As a result, they say, we should expect lower average real interest rates in the immediate future and monetary policymakers should take this into account. For example, some argue that we should revise our estimate of a key parameter (sometimes referred to as the “natural rate of interest” or the “equilibrium rate of interest”) in some of the simple algebraic formulas that are often used as benchmarks to inform contemporaneous monetary policy settings. Because these formulas summarize the historical conduct of monetary policy and because our credibility depends on expectations that we will continue to conduct policy in a way that maintains price stability, deviating from the behavior pattern encapsulated in these simple formulas can be particularly risky. While the possibility of longer-run swings in macroeconomic variables needs to be taken seriously, for me the evidence in this case is not yet compelling enough to warrant setting aside considerations that would otherwise prescribe raising rates.

Other components of GDP are showing healthy growth as well: Like consumer spending, business investment spending weakened around the beginning of this year, but recent reports indicate that capital goods orders appear to have bottomed out last spring and have increased since then, and nonresidential construction spending has registered strong gains as well. These reports suggest that business investment is likely to contribute positively to growth going forward.

Residential investment has registered healthy gains this year. Housing starts year to date (through July) were up 11 percent over the previous year. Even though the rate of home building is rising from relatively low post-recession levels and is unlikely to return soon to a torrid pre-recession pace, the housing market has been making noticeable contributions to growth.

**Labor Markets Have Tightened**

Earlier this year, as it began to prepare the public for an eventual rise in interest rates, the FOMC said it was looking for “further improvements in the labor market” before an increase in interest
rates would be appropriate. Those improvements have materialized: So far this year, the economy has produced an average of 213,000 net new jobs per month and the unemployment rate has fallen to 5.3 percent.\textsuperscript{4}

I should note that these numbers pertain to July; the August employment report is due to be released at 8:30 this morning. While there is always a chance that this morning’s report is unexpectedly weak, it’s quite unlikely that a one-month blip would materially alter the labor market picture or, for that matter, the monetary policy outlook. After all, more than 12 million jobs have been added since the trough in payroll employment in early 2010.

These national statistics indicate a significant tightening in labor markets has taken place over the last year and a half. That conclusion is supported by the anecdotal information we have been receiving from our contacts within the Fifth Federal Reserve District. Over the last year or so, reports of difficulty finding and hiring qualified workers have become notably more widespread and persistent.

You’ll notice that I cited the number of “net” new jobs. While that’s a critical statistic, the overall number masks a significant amount of activity; every day, thousands of workers leave their current jobs or start new jobs, and thousands of employers lay people off or create new vacancies. This “churn” is an important characteristic of dynamic labor markets, as has been emphasized in research by Stephen Davis and John Haltiwanger.\textsuperscript{5} The measures that capture these flows in the labor market have all been strong as well: Year over year, vacancies are up 11 percent, the hiring rate is up 7 percent and the rate at which workers voluntarily leave their jobs, a signal of workers’ confidence in their job market prospects, is up 11 percent.

The unemployment rate, which peaked at 10 percent in October 2009, has fallen more rapidly than many people expected. That decline has been accompanied by a large decline in labor force participation — roughly 3 percentage points since the end of the recession, a steep drop by historical standards.\textsuperscript{6} Some observers have been concerned that the many people who have left the labor force represent a significant amount of “slack” beyond what is captured in the traditional unemployment rate, and that these underutilized labor resources could easily be drawn back into the labor force. Those who are concerned also point to the number of people working part time who would prefer to work full time. A broader measure of unemployment that includes these part-time workers, plus people who have recently left the labor force but would like to be working, was 10.4 percent in July, well above the official unemployment rate of 5.3 percent.

But most of the people who have left the labor force are not currently looking for work. The decline in labor force participation has been driven mainly by structural and demographic factors, such as the growing number of people enrolling in college and the large baby boom generation reaching retirement age.\textsuperscript{7} In addition, research indicates that not all people without a job have the same propensity to return to work. For example, Richmond Fed researchers have constructed a broader measure of underutilization they call a “nonemployment index.” This index counts all people who are not working, not just those who are unemployed according to the official definition, and weights them differently based on their likelihood of becoming employed in the future. For example, unemployed people who are actively looking for work are about three times more likely to become employed than people who say they would like to find a job but are not actively seeking one. Their research demonstrates that while there is more slack than is captured by the official unemployment rate, there seems to be no more now than is usual when
the unemployment rate is around 5.3 percent. In other words, the official unemployment rate is providing a reasonably accurate guide to how the utilization of labor resources has changed over time.

Measures of slack or underutilization are often compared against a normative benchmark, that is, some assessment of what a normal amount of slack would be. Such an assessment takes into account that there will always be some people who have left the labor force because they’re discouraged about the likelihood of finding a job, or who can only find part-time work even though they’d like to be working full time. Such an assessment should also take into account the considerable uncertainty about what exactly constitutes normal at the present time. Economists have taken a range of different approaches to estimating the level of the relevant benchmark, which of course is not directly observable. My sense is that the current unemployment rate is statistically indistinguishable from plausible normative benchmarks, such as estimates of “full employment” or “the natural rate of unemployment.”

Some argue there must be excessive slack in labor markets if wage rates are not accelerating. But real wages are tied to productivity growth, and productivity growth has been slow for several years now. Wage growth in real terms has at least kept pace with productivity increases over that time period, which is perfectly consistent with an economy from which labor market slack has largely dissipated.

Overall, I believe the evidence indicates that labor market conditions no longer warrant continuation of exceptionally low interest rates.

What About Our Inflation Goal?

Although it is easy to overlook, given the intense focus on labor markets in recent years, the Federal Reserve, as our nation’s central bank, is responsible for controlling inflation. At the beginning of 2012, the FOMC announced an explicit long-run inflation goal of 2 percent, confirming what had been widely viewed as our implicit target. Inflation has been below that goal by varying amounts since the middle of 2012. Since January, however, the price index for personal consumption expenditures — our preferred inflation measure — has grown at an average annual rate of 2.2 percent. The core index, which excludes the more volatile food and energy components, has grown at an average rate of 1.7 percent. (You may have heard that inflation over the 12 months ending in July was 0.3 percent, but that 12-month span included the period from July 2014 to January 2015 in which inflation averaged negative 1.5 percent.) These numbers, which have been seasonally adjusted by the U.S. Department of Commerce, provide strong evidence that the transitory effects of last year’s energy prices and exchange rates are behind us.

The second condition the FOMC laid out for raising interest rates was that it would have to be “reasonably confident that inflation will move back to its 2 percent objective over the medium term.” The last half year of data show that inflation already has returned to our 2 percent objective. Thus both conditions that the FOMC stated earlier this year would make it appropriate to raise the target range for the federal funds rate appear to have been met.

The return of inflation to 2 percent should not be surprising. First, the deviation from the committee’s inflation goal during the past few years was not especially large. Research by
economists at the San Francisco Fed and the Richmond Fed suggests that the deviation is not statistically significant once you factor in the volatility of monthly inflation rates. The fact that we have undershot our inflation goal could easily be the result of bad luck, rather than a systematic failure of monetary policy in pursuit of its target.\(^9\)

Second, our best measures of inflation expectations have held reasonably steady at rates consistent with inflation returning to the FOMC’s goal. Survey measures have remained within the narrow bands within which they have fluctuated for some time. While measures derived from U.S. Treasury securities — the so-called TIPS inflation compensation figures — have declined of late, they are not unusually low and could well be dampened by movements in the premium investors place on the superior liquidity of nominal Treasury securities.

As a result, I believe we can be reasonably confident that inflation will continue to gravitate to 2 percent as long as we do not depart from conducting monetary policy in a manner consistent with continued expectations of price stability.

**Should the Recent Financial Market Volatility Give Us Pause?**

No discussion of macroeconomic conditions at this moment would be complete without mention of recent financial market volatility. Developments in China appeared to have heightened uncertainty regarding future economic growth and macroeconomic policy there, which seems to have prompted higher financial market volatility in developed market economies. At times of market turbulence one must maintain a deep respect for the divergent ways in which events could conceivably unfold, and thus I will not pretend I can foretell the future.

Nevertheless, it is worth observing that the direct implications of recent developments for economic fundamentals in the United States appear to be quite limited. If so, then recent market developments will have only limited implications for the appropriate path of monetary policy. This might seem to contradict widespread conjecture about the Fed delaying liftoff due to market turbulence. But I would point out that the Fed has a history of overreacting to financial market movements that seem unconnected to economic fundamentals. The events of 1998-99 are a case in point, when financial developments in emerging markets generated substantial U.S. market volatility despite limited identifiable implications for U.S. growth. The FOMC cut rates three times but ended up taking back those cuts the following year.

**Is Now the Time?**

After the FOMC reduced interest rates to near zero, we included qualitative language indicating that we thought exceptionally low interest rates would be appropriate “for some time,” and then for “an extended period.” In August 2011, the FOMC altered this “forward guidance” language to specify a date before which an increase in the federal funds rate was unlikely. The date was moved forward several times thereafter, eventually stating that low rates were likely until mid-2015. At the end of 2012, this date-based forward guidance was replaced with a statement that the Committee anticipated that low rates would be appropriate “at least as long as the unemployment rate remains above” a threshold of 6.5 percent. The FOMC also stated at the time that this guidance was consistent with previous, date-based guidance — that is, with low rates persisting at least until mid-2015.\(^{10}\)
So here we are, just past mid-2015, with robust employment growth and an unemployment rate that has fallen rapidly over the past few years — more rapidly than many people expected — and is now more than a full percentage point below the committee’s forward guidance threshold. Moreover, inflation is arguably running just above the FOMC’s objective of 2 percent, not below.

Some might argue that as long as inflation is close to 2 percent we have a free pass — we can keep supporting the real side of the economy with low rates until inflation rises. But if, as I’ve argued, the real side of the economy calls for a higher interest rate, then there is a real danger associated with this strategy. Inflation is a lagging indicator, and the forces that lead to rising inflation can build up before they are apparent in the data. We saw this in the mid-1960s, when inflation began increasing after six years of holding steady around 1 percent. Policymakers kept interest rates low in pursuit of low unemployment, in the belief that the unemployment rate consistent with full employment was lower than modern research has shown that it was at the time. This set off the period known as the “Great Inflation,” which lasted until the early 1980s and was quite difficult and painful to reverse. Waiting too long to begin raising rates could require a more dramatic increase in rates to restrain inflation pressures once they have become apparent in the data.

The case for raising interest rates that I have described has actually been true for some time; I could have made the same arguments in June, or even April. But I’ve been willing to wait so far this year. In part, that’s because the FOMC conditioned the public not to expect liftoff before June, and deviating from the expectations we’ve actively fostered should require a significant departure from the economic conditions we anticipated, which hasn’t occurred. In contrast, the Committee has been clear since June that an increase is possible at any remaining meeting this year.

I was also willing to wait for confirmation that the factors holding down real growth and inflation late last year and early this year were transitory. It is now clear that those factors, which included harsh winter weather, the strengthening dollar, and the steep decline in energy prices, have dissipated. It was not unreasonable to seek more definitive evidence that these impediments to growth and price stability had passed, but that question has now been settled.

Progress has been slow and uneven, but the economy has worked its way back from the dislocations of the Great Recession. Unemployment is close to pre-recession levels, real GDP growth has been slow but steady, and inflation is tracking our objective. I am not arguing that the economy is perfect, but nor is it on the ropes, requiring zero interest rates to get it back into the ring. It’s time to align our monetary policy with the significant progress we have made.

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2 I am grateful to John Weinberg and Jessie Romero for assistance in preparing these remarks.

Andreas Hornstein, Marianna Kudlyak, and Fabian Lange, “Measuring Resource Utilization in the Labor Market,” Federal Reserve Bank of Richmond Economic Quarterly, First Quarter 2014, vol. 100, no. 1, pp. 1-21. In a sense, their index is a natural generalization of the unemployment rate, which places a weight of either one or zero on people without a job. The nonemployment index includes all people who do not have jobs and accounts for their varying propensities to transition to employment.


Based on the July unemployment rate of 5.3 percent, as reported by the Bureau of Labor Statistics. Data for August were not released in time for inclusion in this speech.
