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Current Conditions and the Outlook for the U.S. Economy

Remarks by

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I am delighted to be with you today. I will discuss recent economic developments, the outlook, and their implications for monetary policy. My message will be largely favorable, although recent developments have been mixed. Most importantly, the economy has registered considerable progress over the past several years toward the Federal Reserve's goals of maximum employment and price stability, and, as I will explain, there are good reasons to expect that we will advance further toward those goals. The news from the labor market over the past year has been generally good, with significant job gains, the unemployment rate declining below 5 percent, rising household incomes, and tentative signs of faster wage growth. At the same time, recent signs of a slowdown in job creation bear close watching. Inflation has been lower than our objective of 2 percent, but I expect it to move up over time for reasons that I will describe. If incoming data are consistent with labor market conditions strengthening and inflation making progress toward our 2 percent objective, as I expect, further gradual increases in the federal funds rate are likely to be appropriate and most conducive to meeting and maintaining those objectives. However, I will emphasize that monetary policy is not on a preset course and significant shifts in the outlook for the economy would necessitate corresponding shifts in the appropriate path of policy.

In particular, an important theme of my remarks today will be the inevitable uncertainty surrounding the outlook for the economy. Unfortunately, all economic projections are certain to turn out to be inaccurate in some respects, and possibly significantly so. Will the economic situation in Europe or China take a turn for the worse or exceed expectations? Will U.S. productivity growth pick up and allow stronger growth of gross domestic product (GDP) and incomes or instead continue to stagnate?

What will happen with the price of oil? The uncertainties are sizable, and progress toward our goals and, by implication, the appropriate stance of monetary policy will depend on how these uncertainties evolve. Indeed, the policy path that my colleagues and I judge most likely to achieve and maintain maximum employment and price stability has evolved and will continue to evolve in response to developments that alter our economic outlook and the associated risks to that outlook.

The Current Economic Situation

The economic expansion following the Great Recession has now been under way for seven years. The recovery has not always been smooth, but overall, the gains have been impressive. In particular, the job market has strengthened substantially, and I believe we are now close to eliminating the slack that has weighed on the labor market since the recession.

I will turn to this past Friday's labor market report in a moment, but let me begin with some background: The economy added 2.7 million jobs last year, an average of about 230,000 a month. In the first three months of this year, payrolls were growing only modestly slower, at a little less than a 200,000 monthly pace. The unemployment rate had fallen to 5 percent, down from a peak of 10 percent in 2009. In addition, the Bureau of Labor Statistics' measure of the job openings rate was at a record high in March, and the quits rate--the share of employees voluntarily leaving their jobs--has moved up and in March stood close to its pre-recession levels.[1] The increase in the quits rate is a sign that workers are feeling more confident about the job market and are likely receiving more job offers.

[1] Note, however, that the help-wanted index published by the Conference Board suggests that the rate of job openings has been about flat over the past year.

So the overall labor market situation has been quite positive. In that context, this past Friday's labor market report was disappointing. Payroll gains were reported to have been much smaller in April and May than earlier in the year, averaging only about 80,000 per month.[2] And while the unemployment rate was reported to have fallen further in May, that decline occurred not because more people had jobs but because fewer people reported that they were actively seeking work. A broader measure of labor market slack that includes workers marginally attached to the workforce and those working part-time who would prefer full-time work was unchanged. An encouraging aspect of the report, however, was that average hourly earnings for all employees in the nonfarm private sector increased 2-1/2 percent over the past 12 months--a bit faster than in recent years and a welcome indication that wage growth may finally be picking up.[3]

Although this recent labor market report was, on balance, concerning, let me emphasize that one should never attach too much significance to any single monthly report. Other timely indicators from the labor market have been more positive. For example, the number of people filing new claims for unemployment insurance--which can be a good early indicator of changes in labor market conditions--remains quite low, and the public's perceptions of the health of the labor market, as reported in various consumer surveys, remain positive. That said, the monthly labor market report is an

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[2] Payroll employment is now reported to have increased 123,000 in April and 38,000 in May. According to the Bureau of Labor Statistics, payrolls in May were held down about 35,000 by workers on strike at Verizon; thus, the strike can account for a relatively small portion of the slowdown in payroll growth in May. The Verizon workers are now back on the job and should be included in the June payroll counts.

[3] Hourly compensation in the business sector (a measure that includes benefit costs as well as wages) is now reported to have increased about 3 percent over the year ended in the first quarter of 2016, somewhat above the average increase in this series over the preceding several years. In addition, according to the Federal Reserve Bank of Atlanta's "wage growth tracker," wage gains for continuously employed full-time workers have been gradually trending higher in recent years and were 3-1/2 percent over the 12 months through April. However, the employment cost index, another broad measure of labor compensation costs, has remained quite soft, rising only 1-3/4 percent over the year ended in March.

important economic indicator, and so we will need to watch labor market developments carefully.

Economic conditions here in the Philadelphia metropolitan area have improved broadly in line with national trends. During the downturn, the Philadelphia area and the city itself saw unemployment rise by less than it did for the nation as a whole, but unemployment took longer to recover thereafter.[4] In the City of Philadelphia, in particular, unemployment was still running above 10 percent as recently as 2013. But unemployment here has fallen appreciably since then, helped by a revival in residential and commercial construction that is evident around the city.

While the general picture of the labor market is largely positive, some people are still struggling. Unemployment rates rose more during the recession for African Americans and Hispanics than for the nation overall, and even though those rates have also come down by more during the economic expansion, unemployment remains higher for these groups. Unfortunately, those gaps have not narrowed noticeably relative to where they were before the recession. Unemployment rates for young African American and Hispanic men without a college degree remain especially high, and one important benefit from further improvement in the labor market would be increased job opportunities for these men and other groups that currently still experience high unemployment. To be sure, many of the factors that contribute to the labor market outcomes of minority groups are not amenable to monetary policy, and measures beyond the scope of monetary policy should be considered to alleviate the economic challenges

[4] The discussion refers to data for the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Area. Since 1990, the area's unemployment rate has averaged about 1/4 percentage point lower than the national rate. By contrast, in the City of Philadelphia itself, the unemployment rate has generally run about 2 percentage points higher than for the broader metropolitan area.

that these and other Americans face. Education and training, of course, are vital. Later today, I will visit one program that helps workers in West Philadelphia learn new skills and then connects them with potential employers, an initiative in which government, businesses, and local institutions are working together successfully.

While the economy has made great strides toward the FOMC's objective of maximum employment, somewhat less progress has been made toward our inflation objective. Inflation has run persistently below the Fed's goal of 2 percent over the past several years even as the labor market strengthened significantly.[5] Over the 12 months through April, the price index for personal consumption expenditures rose only about 1 percent. But I remain optimistic, because two factors that have been holding down inflation will likely prove only temporary. First, the sharp drop in crude oil prices since the middle of 2014 has lowered prices of gasoline and other energy products, significantly restraining overall inflation. At about the same time, the foreign exchange value of the dollar strengthened, holding down prices of imported goods. But oil prices have stopped declining and indeed have risen from their low point earlier this year. And, since the beginning of the year, the dollar has been roughly unchanged against a broad basket of currencies. As the downward pressure on prices from these two forces dissipates and as the labor market strengthens further, I expect inflation to move back to 2 percent.

[5] The notion that inflation can be too low sounds strange to many people, but very low inflation typically means very low nominal interest rates, leaving little room for monetary policy to push rates down to offset adverse shocks to the economy, thereby increasing the chances that recessions and the associated job losses would be more severe and persistent. In addition, persistent and unexpectedly low inflation may significantly raise the real cost of making mortgage and other loan payments if accompanied by (as is typically the case) smaller-than-anticipated nominal income gains.

The Economic Outlook

Let me now turn to the outlook for the economy. GDP growth was reported to have been relatively weak early this year, but this measure of growth in economic activity can vary significantly from quarter to quarter. Indeed, while spending data for the second quarter are limited at present, recent data on retail sales and motor vehicle sales point to a significant step-up in consumer spending and GDP growth this quarter.[6]

Stepping back from near-term indicators, I would like to focus more broadly on the factors likely to affect economic performance over the coming years. Next week, concurrent with our policy meeting, the FOMC participants will release a new set of economic projections. Those could, of course, differ from the previous set of such projections in March. But speaking for myself, although the economy recently has been affected by a mix of countervailing forces, I see good reasons to expect that the positive forces supporting employment growth and higher inflation will continue to outweigh the negative ones. As a result, I expect the economic expansion to continue, with the labor market improving further and GDP growing moderately. And as I just noted, I expect to see inflation moving up to 2 percent over the next couple of years.

Let me start with the positive. The increase in employment over the past several years has contributed to higher household incomes and strengthening consumer confidence. If the May labor report was an aberration or reflects a temporary slowdown resulting from the weakness in economic activity at the start of the year, then job growth should pick up and support further gains in income. In addition, rising equity and house prices have helped restore households' wealth. The fall in oil prices has supported

[6] On a seasonally adjusted basis, sales of light motor vehicles fell to an annual rate of 16.5 million units in March but then rebounded to a pace of 17.3 million units in April and 17.4 million units in May.

household purchasing power as well. Simple calculations suggest that the average household has gained some $1,300 in purchasing power since mid-2014 from the fall in gasoline prices.[7] With continuing gains in disposable income and wealth, I expect consumer spending to grow at a solid rate. I also expect the housing sector to make further progress. Both home sales and construction have been gradually improving, and residential investment made a noticeable contribution to GDP growth over the past year. Housing has been supported by low mortgage rates, and while mortgage credit is still difficult to obtain for households with low credit scores or hard-to-document income, those with good credit histories are generally able to borrow at very favorable terms.[8] And fiscal policy at the combined national, state, and local levels, which subtracted from GDP growth for much of recovery, is now a small positive.

Economists often say, "on the other hand." So, in keeping with that tradition, I'll now turn to the less-positive. Economic developments abroad have significantly restrained growth in the United States over the past year, although I am cautiously optimistic that these headwinds are now fading. Concerns about slowing growth in China and falling commodity prices, which afflicted global financial markets early this year and thus likely weighed on demand, appear to have eased somewhat. Indicators suggest that foreign economies are growing, if still at only a moderate pace, and foreign financial markets have recovered and stabilized. That said, net exports have been a drag on U.S. GDP growth over the past year and are likely to continue to weigh on growth over the

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[7] In 2013, according to the Energy Information Agency, households purchased about 730 gallons per household on average. Applying the drop in gasoline prices since the first half of 2014, savings per household averaged about $110 in the second half of 2014, $780 in 2015, and another $420 through May of this year, implying a cumulative overall gain of more than $1,300 per household on average.

[8] Housing could receive another boost if there were a continued revival in the rate of new household formation, which has been depressed since the recession as young adults have delayed moving out of their parents' homes.

medium term. This drag, in part, reflects the prolonged effects of the significant increase in the foreign exchange value of the dollar since the middle of 2014, a development that has been particularly challenging for U.S. manufacturers and other firms competing with foreign producers.

Although lower oil prices have likely been a positive influence on the U.S. economy overall, they also have had a negative side, given the sizable U.S. energy industry. New drilling and energy-sector employment have plunged, and the effects have spilled over to businesses serving the energy production sector. But the largest declines in drilling activity are likely now behind us, and with oil prices having recovered somewhat, I expect that oil prices will become less of a factor.

Business investment has been weak in the past six months or so, even beyond the energy sector, and investment in capital equipment is reported to have declined in the last quarter of 2015 and first quarter of this year. I suspect there is a transitory element to this weak investment performance, and I expect investment to rebound. But the latest labor market data raise the less favorable possibility that firms may instead have decided to expand their operations more slowly, and I intend to continue to pay close attention to developments in this area.

As I said, the positive economic forces have outweighed the negative, and despite the challenges that the economy continues to face, I continue to expect further progress toward our employment and inflation objectives.

Some Important Uncertainties

To be sure, there is considerable uncertainty about the economic outlook that I have been discussing, and, as I have already noted, we should expect to be surprised in

the future just as we have been surprised in the past. Four areas of uncertainty seem particularly salient at present.

The first involves the thrust and resilience of domestic demand. The U.S. economy has performed better than many others around the globe, and that performance has relied chiefly on the resilience of domestic sources of demand, consumer spending in particular. So an important question is whether the U.S. economy could continue to make progress amid fairly considerable global bumpiness. I continue to think that the answer to that question is yes, but the weak investment performance in recent months is concerning, and Friday's employment report provides another reminder that the question is still relevant.

The second uncertainty pertains to the economic situation abroad. Even though the financial stresses that had emanated from abroad at the start of this year have eased, global risks require continued attention. Much of the turmoil early this year appeared to be associated with concern over the outlook for Chinese growth, which in turn has broad implications for commodity prices and global economic growth. Recently, the renminbi has moved in a more predictable fashion and Chinese capital outflows have abated. However, it is widely acknowledged that China faces considerable challenges as it continues to rebalance its economy toward domestic demand and consumption.

More generally, in the current environment of sluggish growth, low inflation, and already very accommodative monetary policy in many advanced economies, investor perceptions of and appetite for risk can change abruptly. One development that could shift investor sentiment is the upcoming referendum in the United Kingdom. A U.K. vote to exit the European Union could have significant economic repercussions.

A third key uncertainty for the U.S. economy is the outlook for productivity growth--that is, increases in the amount of output produced per hour worked. While the job market has strengthened significantly, GDP increases have been less impressive. That combination of solid labor market gains and moderate GDP growth reflects the fact that labor productivity growth has been unusually weak in recent years, averaging less than 1/2 percent per year since 2010.[9]

Over time, productivity growth is the key determinant of improvements in living standards, supporting higher pay for workers without increased costs for employers. Recent weak productivity growth likely helps account for the disappointing pace of wage gains during this economic expansion. Therefore, understanding whether, and by how much, productivity growth will pick up is a crucial part of the economic outlook. But this is a very difficult question, and economists are divided. Some are relatively optimistic, pointing to the ongoing pace of innovations that promise revolutionary technologies, from genetically tailored medical therapies to self-driving cars. Others believe that the low-hanging fruit of innovation largely has been picked and that there is simply less scope for further gains.[10]

My position has been, and remains, cautiously optimistic. There is some evidence that the deep recession had a long-lasting effect in depressing investment, research and

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[9] The figures measure output per hour worked in the business sector. From 2007:Q4 through 2016:Q1, productivity growth averaged about 1 percent per year. By comparison, business-sector productivity growth averaged 1-1/2 percent per year over the two decades from the mid-1970s to the mid-1990s, and then it averaged 2¬3/4 percent per year over the next dozen years until the latest recession began.

[10] On the relatively optimistic side, see Mokyr (2014) or Brynjolfsson and McAfee (2014). For a less optimistic perspective, see Gordon (2016) or Cowen (2011). Similarly, Fernald (2014) dates the most recent slowdown in measured productivity growth to before the great recession, in 2005. For evidence that the recent slowdown cannot be fully explained by measurement difficulties, see Byrne, Fernald, and Reinsdorf (2016).

development spending, and the start-up of new firms, and that these factors have, in turn, lowered productivity growth. With time, I expect this effect to ease in a stronger economy.[11] I also see no obvious slowdown in the pace or the potential benefits of innovation in America, which likewise may bear fruit more readily in a stronger economy. In the meantime, it would be helpful to adopt public policies designed to boost productivity. Strengthening education and promoting innovation and investment, public and private, will support longer-term growth in productivity and greater gains in living standards.

A fourth important uncertainty for the economic outlook involves how quickly inflation will move back to 2 percent. As long as oil prices do not resume their earlier declines and the dollar does not rise substantially further, my expectation is that inflation will move up to 2 percent over the next one to two years. But oil prices and the dollar can move unpredictably. In addition, a further strengthening of labor market conditions would typically be estimated to exert modest upward pressure on inflation over the next couple of years; but such estimates are inherently imprecise, and the effect on inflation could turn out to be significantly different, either upward or downward, than I expect.

Uncertainty concerning the outlook for inflation also reflects, in part, uncertainty about the behavior of those inflation expectations that are relevant to price setting. For two decades, inflation has been relatively stable, reacting less persistently than before to temporary factors like a recession or a swing in oil prices. The most convincing explanation for this stability, in my view, is that longer-term inflation expectations have remained quite stable.[12] So it bears noting that some survey measures of longer-term

[11] See Reifschneider, Wascher, and Wilcox (2015).
[12] For a more detailed discussion, see Yellen (2015a).

inflation expectations have moved a little lower over the past couple of years, while proxies for these expectations inferred from financial market instruments like inflation-protected securities have moved down more noticeably. It is unclear whether these indicators point to a true decline in those inflation expectations that are relevant for price setting; for example, the financial market measures may reflect changing attitudes toward inflation risk more than actual inflation expectations. But the indicators have moved enough to get my close attention. If inflation expectations really are moving lower, that could call into question whether inflation will move back to 2 percent as quickly as I expect.

Policy Implications

Let me now turn to the implications of the economic outlook, as well as the uncertainties associated with that outlook, for monetary policy. My overall assessment is that the current stance of monetary policy is generally appropriate, in that it is providing support to the economy by encouraging further labor market improvement that will help return inflation to 2 percent. At the same time, I continue to think that the federal funds rate will probably need to rise gradually over time to ensure price stability and maximum sustainable employment in the longer run.

Several considerations lead me to this conclusion. First, the current stance of monetary policy is stimulative, although perhaps not as stimulative as might appear at first glance. One useful measure of the stance of policy is the deviation of the federal funds rate from a "neutral" value, defined as the level of the federal funds rate that would be neither expansionary nor contractionary if the economy was operating near potential. This neutral rate changes over time, and, at any given date, it depends on a constellation

of underlying forces affecting the economy. At present, many estimates show the neutral rate to be quite low by historical standards--indeed, close to zero when measured in real, or inflation-adjusted, terms.[13] The current actual value of the federal funds rate, also measured in real terms, is even lower, somewhere around minus 1 percent. With the actual real federal funds rate modestly below the relatively low neutral real rate, the stance of monetary policy at present should be viewed as modestly accommodative.[14]

Although the economy is now fairly close to the FOMC's goal of maximum employment, I view our modestly accommodative stance of policy as appropriate for several reasons. First, with inflation continuing to run below our objective, a mild undershooting of the unemployment rate considered to be normal in the longer run could help move inflation back up to 2 percent more quickly. Second, a stronger job market could also support labor market improvement along other dimensions, including greater labor force participation. A third reason relates to the risks associated with the constraint on conventional monetary policy when the federal funds rate is near zero. If inflation were to move persistently above 2 percent or the economy were to become notably overheated, the Committee could readily increase the target range for the federal funds rate. However, if inflation were to remain persistently low or the expansion were to

[13] The neutral rate is not directly observable and must instead be inferred from economic data, and estimates will vary depending on the methodology employed. However, we know that the neutral rate must have been well below its historical norm in recent years, because with the actual real interest having been as low as it has been lately, the economy would have otherwise expanded much more than has been the case. In recent years, the neutral rate has likely been held down below normal levels because of the factors I discussed earlier, including persistently weak growth abroad, the high exchange value of the dollar, low rates of household formation, and weak productivity growth. As I have noted before (see Yellen, 2015b), there is empirical evidence to support the conclusion that the neutral rate is currently not far from zero. See, in particular, Lubik and Matthes (2015), Laubach and Williams (2016), and Johanssen and Mertens (2016).
[14] The targeted federal funds rate, currently 0.37 percent, less the 12-month core inflation rate for personal consumption expenditures through April, equals about negative 1.2 percent.

falter, the FOMC would be able to provide only a limited amount of additional stimulus through conventional means.[15]

These motivations notwithstanding, I continue to believe that it will be appropriate to gradually reduce the degree of monetary policy accommodation, provided that labor market conditions strengthen further and inflation continues to make progress toward our 2 percent objective. Because monetary policy affects the economy with a lag, steps to withdraw this monetary accommodation ought to be initiated before the FOMC's goals are fully reached. And if the headwinds that have lingered since the crisis slowly abate as I anticipate, this would mean that the neutral rate of interest itself will move up, providing further impetus to gradually increase the federal funds rate. But I stress that the economic outlook, including the pace at which the neutral rate may shift over time, is uncertain, so monetary policy cannot proceed on any preset path.[16]

This point is well illustrated by events so far this year. For a time in January and early February, financial markets here and abroad became turbulent and financial conditions tightened, reflecting and reinforcing concerns about downside risks to the global economy. In addition, data received during the winter suggested that U.S. growth had weakened even as progress in the labor market remained solid. Because the implications of these developments for the economic outlook were unclear, the FOMC

[15] There are unconventional policy tools that could be employed to provide further support to aggregate demand, if necessary, and the efficacy and costs of using those tools would be weighed by the FOMC, as appropriate. However, so long as these tools are considered imperfect substitutes for the federal funds rate as an instrument of policy, the argument that the effective lower bound on nominal interest rates represents a source of asymmetric risk remains valid.

[16] Uncertainty about where the target range for the federal funds rate will be in the long run provides another reason why increases in policy rates cannot be on a preset path. I view the median value of 3-1/4 percent from the March SEP as being a reasonable guess for the longer-run normal rate. But FOMC participants have lowered their estimates of the longer-run normal rate over time, and as new evidence comes in and we see how economic conditions evolve, further changes, in either direction, are likely.

decided at its January, March, and April meetings that it would be prudent to maintain the existing target range for the federal funds rate.

Over the past few months, financial conditions have recovered significantly and many of the risks from abroad have diminished, although some risks remain. In addition, consumer spending appears to have rebounded, providing some reassurance that overall growth has indeed picked up as expected. Unfortunately, as I noted earlier, new questions about the economic outlook have been raised by the recent labor market data. Is the markedly reduced pace of hiring in April and May a harbinger of a persistent slowdown in the broader economy? Or will monthly payroll gains move up toward the solid pace they maintained earlier this year and in 2015? Does the latest reading on the unemployment rate indicate that we are essentially back to full employment, or does relatively subdued wage growth signal that more slack remains? My colleagues and I will be wrestling with these and other related questions going forward.

Conclusion

To summarize, I have explained why I expect the U.S. economy will continue to improve and why I expect that further gradual increases in the federal funds rate will probably be appropriate to best promote the FOMC's goals of maximum employment and price stability. I have also laid out the considerable and unavoidable uncertainties that apply to both this outlook for the economy and to the appropriate path of the federal funds rate. My colleagues and I will make our policy decisions based on what incoming information implies for the economic outlook and the risks to that outlook. What is certain is that monetary policy is not on a preset course, and that the Committee will respond to new data and reassess risks so as to best achieve our goals.

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