The Times They Are A-Changin'

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The views expressed today are my own and not necessarily
Those of the Federal Reserve System or the FOMC.

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Introduction

Thank you for that kind introduction. It is a pleasure to join you this afternoon.

The determination of monetary policy may at times seem mysterious. The issues are complex and difficult to convey. I view communication as an important part of my responsibilities as a member of the Federal Open Market Committee (FOMC). Moreover, effective communication can help improve the efficacy of monetary policy actions. Today, I hope to give you an understanding of my outlook for the U.S. economy and why I supported the Fed's recent rate increases; the implications of low potential output growth and inflation trends; and policymaking in the current economic environment.

But before I begin my remarks, I am obliged to remind you that the views I express are my own and do not necessarily reflect the views of my colleagues on the FOMC or within the Federal Reserve System.

The environment for setting monetary policy has improved notably since December 2015. That is when the FOMC voted to increase the target range for the federal funds rate by 25 basis points to 1/4 to 1/2 percent. [1] The action marked the first time the Committee had changed the rate since December 2008.[2] After a year's pause, the FOMC raised the federal funds rate target range another 25 basis points in December 2016 and again at its meeting earlier this month.[3]

Unlike some other central banks, the Federal Reserve has what is referred to as a "dual mandate."[4] Specifically, we have been charged by the U.S. Congress to create financial conditions that support both full employment and price stability. Looking where we are today, I see we have made good progress on meeting those objectives.

The unemployment rate is close to what the Committee judges to be a mandate-consistent level. And the inflation outlook has improved, though we have not quite yet achieved our 2 percent symmetric inflation target, as measured by the annual change in the Price Index for Personal Consumption Expenditures (PCE).[5] These are important considerations that help explain why I supported our recent rate increases and why my current dual mandate outlook allows me to support another one or two increases this year.

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[1] See Federal Open Market Committee (2015). The federal funds rate is a key short-term interest rate that influences other interest rates. For more on this key policy rate, see https://www.chicagofed.org/research/dual-mandate/the-federal-funds-rate.

[2] See Federal Open Market Committee (2008).

[3] See Federal Open Market Committee (2016, 2017b).

[4] For more on the dual mandate, see https://www.chicagofed.org/research/dual-mandate/dual-mandate.

[5] In January 2012, the FOMC set 2 percent as the explicit inflation target consistent with our price stability mandate. See Federal Open Market Committee (2012).

An important reflection of our dual mandate progress is that the expected federal funds rate path is now confidently upward sloping. In the FOMC's latest Summary of Economic Projections (SEP),[6] the median participant's federal funds rate expectation for the end of 2018 is about 2 percent. This anticipated higher fed funds rate provides a bit of a buffer to provide additional accommodation if growth were to slow or we don't make sufficient progress toward our inflation target. In such a case, we could loosen policy by reducing the expected fed funds rate path through forward guidance[7] or, if necessary, by an outright cut in rates. Uncertainties and risks remain. But in a rising rate environment that reflects both strong economic fundamentals and, possibly, stronger fiscal support over the medium term, the Fed has more room to manage downside risks.

To be clear, my modal expectation is that the fed funds rate will evolve roughly in line with the median SEP path. So, I expect monetary policy watching will recede into a more boring spectator sport over the next couple of years. Having taken over the helm of the Chicago Fed in 2007 — great timing — I am eagerly looking forward to this.

Now let me turn to my economic outlook for the United States.

Outlook

Currently, the fundamentals for the U.S. economy are good. The labor market (in a cyclical sense) is healthy. In October 2009 the unemployment rate in the U.S. stood at a daunting 10.0 percent. Today it is 4.7 percent. Payrolls have increased for 77 consecutive months, with job gains in recent months averaging more than 200,000. To be sure, we've seen only moderate improvement in wages, with many measures remaining below pre-crisis levels. Some of this, however, likely reflects low productivity trends and low inflation — topics I will return to later.

The healthy labor market and improved household balance sheet positions have helped fuel solid growth in consumer spending over the past couple of years. We've seen some weaker incoming data in the current quarter, but I expect this will prove transitory as the fundamentals underlying consumer spending continue to look good.

In contrast, business investment has been disappointing for some time. There are understandable reasons for this: The rising value of the dollar has weighed on U.S. firms with an international presence, and low and variable oil prices have held back energy exploration and drilling. Nonetheless, even after accounting for these factors, recent capital spending has still been weak. Fortunately, recent indicators are pointing to some recovery in expenditures. And business optimism generally has increased of late, which could further boost capital spending.

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[6] The SEP is released quarterly. The summary presents FOMC participants' forecasts of key economic variables over the next three years and for the longer run. Participants also provide their assessments of the appropriate monetary policy that supports those forecasts. For the most recent projections released on March 15, 2017, see Federal Open Market Committee (2017a).

[7] For details on the Federal Reserve's use of forward guidance, see Board of Governors of the Federal Reserve System (2015b).

To characterize my forecast over the next few years, I see: 1) gross domestic product (GDP) growth averaging moderately above potential; 2) the unemployment rate undershooting the natural rate[8] somewhat; and 3) the underlying trend in inflation gradually moving up to our 2 percent symmetric target. I will return to the inflation outlook later.

For those of you who are interested in only my medium-term growth forecast, this is a good time to doze off. But if you're interested in hearing how I see the pieces of the monetary policy puzzle fitting together, I'd try to stay awake.

Uncertainties

Of course, as a monetary policymaker, my job is to worry. I know I need to be vigilant for signs that my thinking needs to be adjusted. And right now, the uncertainties are actually pretty high.

But the uncertainties today are much different than those over much of the post-crisis period. We have been exposed to many risks and have been buffeted by many headwinds. These included

1. the European sovereign debt predicaments (particularly the Greek crisis in 2010);
2. the U.S. debt limit showdown beginning in 2011; and
3. the downshift in Chinese growth in recent years.

All of these developments posed important downside risks to the U.S. outlook. Today, some downside risks remain, but they don't seem as intense as they once did.

What's also different today is that, for the first time in quite a while, we can point to more notable upside growth scenarios as well. Growth in both advanced and emerging market economies picked up in the second half of 2016, and foreign economic prospects are looking better than they have for some time. In the U.S., there are many fiscal proposals before Congress. The precise details of any final legislation remain unclear, so it's difficult to evaluate their potential implications. However, the general thinking is that such policies could boost growth for a time.

But the bar for what constitutes an upside growth scenario is a lot lower than what it used to be. This bar is the long-run sustainable growth rate of the economy. There was a time when we thought 3-1/2 percent was possible.[9] Unfortunately, that no longer seems likely. Instead, many analysts now believe that sustainable growth is not even as high as 2 percent.

This brings me to the status of trend growth in the United States.

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[8] The natural rate of unemployment is the unemployment rate that would prevail in an economy making full use of its productive resources. Consequently, it is the rate of unemployment that would predominate over the longer run in the absence of shocks to the economy.

[9] The Congressional Budget Office (CBO) estimates that over the 1960s, '70s, '80s and '90s, real potential output growth averaged 3.5 percent. See Congressional Budget Office (2016).

Low Potential Output Growth

As I have spoken about for over a year now, sustainable, or trend, growth for the U.S. has been and is likely going to remain lower than we all would prefer. Changing it by much would require some truly astounding turnarounds in demographic and technological trends.

The long-run sustainable growth rate in an economy is determined by the growth rates in its labor input and the productivity of that labor. This is simple arithmetic. When my research staff adds up their estimates of these factors, they see the sustainable growth rate in the U.S. currently at about 1-3/4 percent, with only a little upside potential over the next few years as various economic headwinds fade. Many analysts have similar projections.

Now, what I am about to say is not new information. But it often is overlooked in rosy economic scenarios. The arithmetic I just cited dictates that if you want to raise this number to 3 or 4 percent, you need more sustainable growth in labor input and productivity. Unfortunately, we have seen a decline in both of these factors relative to the 1982–2007 period.

The U.S. trend in labor force participation has been declining for over 15 years: Baby boomers are retiring; men have less attachment to the workforce as they grow older; female participation rates have plateaued; and participation by 18–24 year olds has declined. These patterns won't turn around soon. It just isn't possible to instantaneously birth a large cohort of qualified 25-year-old workers.

Along with slower labor force growth, the U.S. also has experienced slower growth in labor productivity. Improvements in labor quality — that is, gains in education and experience — are no longer adding much to productivity in the aggregate. Capital deepening has the potential to boost labor productivity.[10] However, as I noted earlier, business investment has been relatively weak, resulting in only modest capital deepening. And the pace of technological advancement appears to have slowed. In the late 1990s, there was a surge in capital-embodied technological change. These gains were then incorporated into better business practices in the early 2000s. But today, growth in what economists call total factor productivity[11] seems to have reverted to the slow rates seen in the 1973–95 period.[12]

Of course, it would be wonderful to be able to boost productivity gains. Some policies can help. For example, well-designed tax reform may reduce tax inefficiencies for businesses, boost investment and allow for better focus on improving business processes. However, its overall effects on sustainable productivity growth are not likely

[10] Capital deepening is defined as the ratio of capital to labor. As this ratio increases, workers have more capital to use in performing their jobs.

[11] Total factor productivity refers to the technologies and operational systems that businesses use to combine various inputs into outputs. In other words, it captures the residual growth in total output of the national economy that cannot be explained by the accumulation of measured inputs, such as labor and capital.

[12] See Fernald (2016).

to be very large. And, more broadly, we unfortunately just don't know that much about how to spur the technological innovations and improvements in business processes that are so important to raising productivity.

Furthermore, when consequential innovations do take place, it often takes time for them to disseminate throughout the economy. Transitions may even idle some capacity for a while as the workforce acquires the skills that are necessary to use new technologies and resources are reallocated across sectors, regions and borders.

We all certainly would like to have a surge in sustainable growth to the 3 to 4 percent range. But looking at the details of how it could be accomplished, I would argue the odds of achieving such large gains in the current demographic and economic environment seem to be pretty low.

What does this all mean for monetary policy? It is certainly possible that we could see some large GDP growth numbers for a time. However, unless they reflect sustainable, structural improvements in labor and productivity, such growth would eventually put strong pressure on resources and drive up wages and prices. Clearly, in such a situation, financial markets and the Fed's focus on our dual mandate responsibilities would ultimately lead to more restrictive financial conditions.

This brings me to my thoughts on inflation.

Inflation

As you know, inflation has been underrunning the Federal Reserve's 2 percent target almost continually since 2008. My outlook sees a sustained increase to 2 percent only by 2019. Forecasting inflation is quite difficult. The outlook depends on the evolution of resource slack; the pull — up or down — from inflationary expectations; and the variety of cost shocks that can hit an economy. And today we know a lot will depend on how the fiscal and international issues play out, as well as on the implementation of monetary policy.

One concern that I have is that the post-2008 experience has left long-term inflation expectations too low. If low inflation expectations are embedded in today's pricing decisions, the resulting downward pull on inflation would make it all the more difficult to reach our 2 percent goal.

Suppose, though, that inflation does rise more quickly than I expect. How would the FOMC likely respond? Well, it depends. The FOMC's long-run price stability goal is 2 percent for overall PCE inflation. But it is important to remember that we strive for sustained symmetric achievement of 2 percent.

While our objective is in terms of overall PCE inflation, core inflation —which strips out the volatile food and energy sectors — is a better gauge of sustained inflationary pressures. For example, a sharp drop in energy prices pulled overall PCE inflation down

to under 1/2 percent in 2015; and the recent partial rebound has lifted headline inflation to 1.9 percent. But the rise in energy prices probably will carry headline PCE inflation higher only for a time. It is more likely to fall back to the underlying rate as measured by core inflation. Today that rate is 1.7 percent. And I don't expect it to achieve 2 percent until 2019.

I believe focusing on core inflation is important for U.S. monetary policymakers. It told us that we should not ease policy in 2015 in reaction to the energy-related drop in headline inflation, and today it is telling us that we should not be adjusting policy as if we had sustainably reached our inflation rate target.

So much for transitory swings in inflation. But what about more sustained inflationary developments? How is monetary policy positioned to react to those?

The Policy Environment

As I noted at the outset, an upward-sloping federal funds rate path and solid economic fundamentals make for a noticeably improved policy-setting environment. The median FOMC participant envisions two additional 25 basis point increases in the federal funds rate this year and three increases next year. This would put the fed funds rate at the end of 2018 at about 2 percent.[13]

Compared with previous tightening cycles, this is a far more gradual path.[14] So, if economic growth and inflation expectations pick up so that core inflation rises more strongly than I expect, a sturdier economy would be able to handle a steeper path of rate increases. Furthermore, even an inflation rate of 2-1/2 percent for a time is consistent with our symmetric inflation objective. Indeed, the best way to assuredly get to 2 percent inflation is to do it faster and with momentum. So I believe that a policy path that allows for some possibility of such an inflation outcome is a reasonably acceptable risk to take.

Some fear such a modest overshooting of our inflation target. Their concern is that bringing inflation back to target might require a large policy tightening and, therefore, risk a recession. This reflects memories of past monetary tightening cycles.

I don't think these comparisons are quite right for today's economy. During much of the post-World War II era, when the Fed increased rates, we were in the midst of fighting elevated inflation. In particular, there were some truly substantial tightenings during the Fed's persistent attempts to bring down historically high inflation during the 1970s and 1980s. The FOMC's resolve to pursue low and stable inflation in the Volcker and Greenspan eras was strong and obvious.[15]

[13] Federal Open Market Committee (2017a).

[14] During the previous tightening cycle, the FOMC raised the federal funds rate by 25 basis points at every meeting between August 2004 and June 2006. And even this was considered a gradual, measured pace of rate increases.

[15] Paul Volcker was the Chairman of the Federal Reserve from August 6, 1979, until August 11, 1987. Alan Greenspan succeeded him and held that position until January 31, 2006.

Indeed, during most of the period from the 1970s into the 1990s, the direction of monetary policy was always pretty clear: Inflation was much too high, well above any sensible inflation objective, and monetary policy tried to engineer lower inflation whenever it was opportune. This was not without risk. There was a large recession in the early 1980s with the Volcker disinflation. And even the more delicate attempts often risked recessions — especially when other events intervened (such as the Iraqi invasion of Kuwait in 1990).

But by 2003 or so, this disinflationary process appeared to be complete. Indeed, in May 2003 inflation was flirting with uncomfortably low levels and the FOMC statement explicitly acknowledged something new — a downside risk to our price stability mandate.[16]

After a brief respite from 2004 to 2008, we have again been living with the risk of too-low inflation. Unlike the 1970s, '80s and '90s, when policymakers were starting with inflation and inflation expectations that were too high, today we are starting from a position in which they are too low. Therefore, while past inflationary episodes are important historical lessons, I don't see us as living in the same economic environment today. So the odds of needing historically similar draconian rate increases to keep inflation in check seem quite low.

What about the opposite problem? What if the economy faltered somewhat while inflation remained well below 2 percent? Well, here, the upward-sloping path for the federal funds rate gives us leverage: Monetary policy could provide some additional accommodation simply by lowering the expected path of the increases, as conveyed in the SEP policy communications from the FOMC. In model simulations, such forward guidance has some degree of effectiveness. And if more monetary easing is required, we could also reduce the fed funds rate, providing additional direct accommodation in the old, familiar way.

As a hypothetical, suppose we find ourselves in such a situation late next year. According to the latest SEP, expectations are that the fed funds rate then would be about 2 percent, and so there would that much room to cut rates.[17]

To judge the degree of accommodation this could provide, we need to look at the fed funds rate relative to its neutral level, or the rate at which policy is neither expansionary nor contractionary. The long-run neutral federal funds rate is about 3 percent as judged by the median SEP.[18] But the shorter- and medium-run neutral rate is likely a good deal lower than that. So while that 2 percent funds rate buffer is important, it might not represent as much accommodative room as it would if we were further down the road and the neutral rate was at its long-run level. Also, because there is a good deal of uncertainty over the neutral rate, it is always difficult to precisely judge the degree of accommodation provided by the stance of policy.

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[16] Federal Open Market Committee (2003).
[17] Federal Open Market Committee (2017a).
[18] Ibid.

So, in spite of the better situation we find ourselves in today, I still worry about darker scenarios in which we return to the zero lower bound (ZLB). That is one reason why I think it's so important to get inflation and inflation expectations up to target, so that we have maximum rate cutting capacity.

If we do return to the ZLB, large-scale asset purchases (also referred to as quantitative easing, or QE, programs)[19] and forward guidance are useful additional tools that the Fed could employ. They have proven their worth. But it can be difficult for a large committee such as the FOMC to come to a consensus about unconventional policies. That is my take-away from my participation on the FOMC over the past ten years. And you can get a good idea of how difficult it is by reading former Chairman Bernanke's book.[20]

In 2008 there were no guidelines for using unconventional policies to provide additional accommodation. The FOMC had to learn (and agree on) how to use these tools, of which there were several variations — QE1, QE2, MEP,[21] open-ended QE3 and forward guidance. We have also watched with attentiveness the experiences with negative interest rates here in Europe and in Japan.

The FOMC that learned how to use quantitative easing and forward guidance is now turning over. There will be a new composition, with new governors and new presidents. This changing of the guard is natural and inevitable. Future central bankers likely will be well attuned to using our traditional policy tool, the fed funds rate, to influence the level of short-term rates. But deciding on when and how to deploy asset purchases will be far less familiar. I worry that as institutional memory recedes, the hard-learned expertise will fade as well.

There is nothing easy about quantitative easing. The resulting large balance sheets are controversial. Criticism is fine, is expected, and is a normal part of being accountable for goals-based monetary policy. Still, future Committees may have to relearn how to take necessary but unpopular actions. This also drives home the need for central bank independence to protect against short-term political considerations.

Conclusion

To conclude, the FOMC's experience during and since the financial crisis highlights the need for a willingness to deploy all reasonable monetary policy tools when the times call for them — even if they might be controversial. Now, monetary policy is not alone. Ample provision of other public policy tools, such as appropriate fiscal and tax policies to support maximum employment, are also important. A stronger fiscal picture likely

[19] For more about large-scale asset purchases and the rationale behind them, see Board of Governors of the Federal Reserve System (2015a).
[20] Bernanke (2015).
[21] For more on the Fed's maturity extension program, or MEP, see Board of Governors of the Federal Reserve System (2013).

raises the neutral fed funds rate and thus lowers the risk of hitting the ZLB and having to resort to outsized unconventional monetary policies.

But whatever the economic environment, in the end, monetary policymakers must be ready to do what they can to meet their legislated policy objectives. Central bankers need to address legitimate criticisms. However, they also need to be resilient to critiques that ultimately could jeopardize their ability to achieve their objectives. They have the responsibility to meet these mandates, and they need to act accordingly.

Thank you.

Executive Summary

In my remarks today, I touched upon several issues. To sum up, here are my main points:

1. The environment for setting monetary policy has improved considerably. For the first time in quite a while, I see more notable upside risks to growth. And though I still have concerns, I see inflation gradually moving up to target.
2. I think the progress made toward the FOMC's dual mandate goals justifies our recent rate increases, and my current outlook envisions the fed funds rate moving up over the next few years along a path roughly consistent with the median FOMC projection.
3. However, given the apparent decline in the growth potential of the U.S. economy and the related low level of the neutral federal funds rate, I still worry about revisiting the zero lower bound and having to resort to unconventional monetary policies.
4. We are well aware of the uncertainties and difficulties associated with these policies. Nonetheless, if they are necessary to achieve our mandated policy goals, then independent central bankers must be prepared to use them.

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