

The Economic Outlook and Monetary Policy Communications



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Introduction

I thank Dean Nancy Bagranoff, Professor Dean Croushore, and the University of Richmond's Robins School of Business for the opportunity to deliver this year's Stanley S. Watts lecture. I feel honored to join the list of distinguished speakers who have previously presented the Watts lecture. I have had the pleasure of knowing and working with Professor Croushore for many years. Through his research and analysis, Dean has made important contributions to the Federal Reserve System and to the economics profession. As a professor, he is passing on his knowledge by training the next generation of economists and business people, an important public service.

This evening, I will speak about monetary policy and the role of communications in Federal Reserve policymaking. I serve on the Federal Open Market Committee's subcommittee on communications, so it may not be surprising that I believe communications play an essential role in monetary policy implementation. Of course, my remarks this evening will reflect my own views and not necessarily those of the Federal Reserve System or my colleagues on the Federal Open Market Committee.

Last Week's FOMC Monetary Policy Decision and the Economic Outlook

This is an opportune time to talk about policy communications because, as I'm sure many of you know, the FOMC announced last week that it had decided to raise the target range for the federal funds rate by one-quarter percentage point to 3/4 to 1 percent. This decision was based on the Committee's view of actual and expected economic performance, the risks around the outlook, and the progress toward our goals of maximum employment and price stability. I fully supported this further step on the path of increases in the federal funds rate that the Committee has indicated for some time is likely to be appropriate to achieve and maintain our objectives, should the economy evolve as anticipated.

In my view, the underlying fundamentals supporting the economic expansion are sound. Looking through the quarterly pattern of ups and downs, we find that output has sustained a moderate pace of

about 2 percent growth, on average, over the past three years. So far, based on the limited data available, tracking estimates suggest that growth in the current quarter may come in on the weak side. I am not taking much of a signal from this, as it likely reflects some transitory factors like reduced energy demand due to unseasonably warm weather early in the year and residual seasonality in the data – we've seen a pattern over the past several years of weak growth in the first quarter followed by stronger growth in subsequent quarters. I see favorable fundamentals as supportive of GDP growth over the next year at somewhat above trend, which I estimate at 2 percent. These fundamentals include accommodative monetary policy and financial conditions, improved household balance sheets and income growth, and continued strength in the labor market.

In 2016, the economy added over 2.2 million jobs, about 187,000 per month on average. This year, that strength has been sustained, with an average increase of 237,000 jobs per month in January and February. The pace is well above estimates of trend employment growth, which range from around 75,000 to 120,000 per month, depending on what one assumes about labor force participation. Demographic factors, including the aging of our population, have resulted in a downward trend in participation, which is one of the reasons trend employment growth is lower than it was a few decades ago. But rather than declining like its trend, the participation rate has been basically stable for the past three years. This is a further sign of strength in the labor market.

As the economy has added jobs, the unemployment rate has been moving down. In February, it stood at 4.7 percent, less than half of its peak after the Great Recession. Although payroll job growth is likely to slow a bit from its current pace, given the progress that's already been made, it will be sufficient to put further downward pressure on the unemployment rate. I expect the unemployment rate to stay below my estimate of its longer-run rate of 5 percent over the next two years.

The other part of the Fed's dual mandate is price stability. For a while, inflation has been running below the Fed's target of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, that is, total PCE inflation. But inflation has picked up over the past year and is moving in the right direction. There are likely to be monthly variations in the inflation numbers as previous changes in energy and import prices roll out of our year-over-year measures, and current fluctuations roll in. In determining where we are relative to goal, we need to look through transitory movements in the numbers, both those above and those below our goal, and focus on where inflation is going on a sustained basis. The inflation rate over the longer run is primarily determined by monetary policy, and with appropriate adjustments in monetary policy, I believe the conditions are in place for a sustained return over the next year or so to our symmetric goal of 2 percent inflation. Conditions supporting the return to goal include the firmer data on inflation, reasonably stable inflation expectations, continued strength in the labor market, and growth expected to be at or slightly above trend.

The appropriate adjustments in monetary policy are those that will sustain the expansion so that our longer-run goals of price stability and maximum employment are met and maintained. If economic conditions evolve as anticipated, I believe further removal of accommodation via increases in the fed funds rate will be needed. My current assessment is that the pace of removal won't call for an increase in the fed funds rate at each meeting, but it does mean more than the one-increase-per-year seen in the past two years. This upward policy path will help prolong the expansion, not curtail it. It will help avoid a build-up of risks to macroeconomic stability that could arise if the economy is allowed to overheat, as well as risks to financial stability if interest rates remain too low and encourage investors to take on excessively risky investments in a search for yield.

Along with its rate increase, last week the FOMC also announced that it was maintaining its policy of reinvesting the proceeds of maturing Treasury securities and principal payments from agency debt and agency mortgage-backed securities, essentially maintaining the Fed's balance sheet at its very large size.

The balance sheet grew when the Fed undertook several programs to purchase longer-term assets. The FOMC used this nontraditional policy tool to address the Great Recession, once its traditional policy tool, the fed funds rate, had been reduced to effectively zero. As Chair Yellen mentioned in her press briefing, the FOMC is discussing its reinvestment policy, but no decisions have been made. In my view, if economic conditions evolve as I anticipate, I would be comfortable changing our reinvestment policy this year. I view this as consistent with our principles of policy normalization and our statement that we anticipate continuing reinvestments “until normalization of the level of the federal funds rate is well under way.”¹ Ending reinvestments is a first step toward reducing the size of the balance sheet and returning its composition to primarily Treasury securities over time – a welcome acknowledgment that the economy and policy are transitioning back to normal.

Fed Structure, Monetary Policy Independence, and Accountability

I have already mentioned two important pieces of monetary policy communication, namely, the FOMC’s post-meeting statement and the Chair’s press briefing. But before I go any further, it will help if I provide a little information about the structure of the institution responsible for setting U.S. monetary policy.

Congress established the Fed in 1913 to operate in the public interest to promote the health of the U.S. economy and financial system. Congress designed the Fed as a decentralized central bank, independent *within* the government but not independent *from* the government. The Fed’s design balances public-sector and private-sector interests, and Wall Street and Main Street concerns.

The Federal Reserve System has 12 regional Reserve Banks distributed across the country – including one right here in Richmond. The Reserve Banks are overseen by a seven-member Board of Governors in

¹ See, “[Policy Normalization Principles and Plans](#),” FOMC, September 17, 2014, and the [FOMC post-meeting statement of March 15, 2017](#).

Washington, D.C.² I believe the regional structure of the Federal Reserve has served the country well for more than 100 years. This design allows monetary policy decisions to take into account the diversity of the American economy and its people. Setting monetary policy is a complex undertaking, and I believe the history of the Fed has shown that better policy decisions are made when diverse information and views are considered. The Fed's structure also helps us to carry out our other responsibilities. These include supervising and regulating banks and other important financial institutions, promoting the stability of the financial system, playing a major role in overseeing the nation's payments system, providing certain financial services to the U.S. government, and identifying effective community development policies and best practices for promoting economic progress and access to credit in low- and moderate-income neighborhoods.

The FOMC comprises the seven members of the Board of Governors, the president of the New York Fed, and four other Reserve Bank presidents, who serve on a rotating basis. As president of the Cleveland Fed, I vote every other year, as does the Chicago Fed's president. The other presidents vote every third year. I note, though, that all Reserve Bank presidents, whether voting members at the moment or not, participate in FOMC meetings. Thus, by design, the discussions at our meetings contain a mosaic of economic information and analysis from all parts of the country. When I attend FOMC meetings, I make it a point to bring the economic information the Cleveland Fed staff and I have garnered from business, consumer, and labor contacts throughout the Fourth District, which comprises the state of Ohio, western Pennsylvania, eastern Kentucky, and the northern panhandle of West Virginia. This regional information, along with economic and financial data and analysis, plays an important part in the FOMC's setting of national monetary policy in pursuit of our goals of maximum employment and price stability, which were given to us by Congress.

² Currently, there are two openings on the Board of Governors and there will be another when Governor Daniel Tarullo steps down in early April.

While Congress has set the Fed's goals, it has also wisely given the Fed independence in making monetary policy decisions in pursuit of those goals. That is, monetary policy decisions do not have to be approved by the president or Congress. This is wise because a substantial body of research and actual practice indicate that when a central bank formulates monetary policy free from short-run political interference and is held accountable for its decisions, better economic outcomes result.

Independence in setting monetary policy is worth preserving because it yields more effective policy. But accountability must go hand in hand with independence. A central bank cannot expect to remain independent from the political process unless it is transparent about the rationale for its policy decisions. It takes some time for monetary policy to affect the economy, so the public won't be able to immediately see whether a policy action was a good one. So it is incumbent upon policymakers to explain their decisions, including their assessment of economic conditions, as well as their outlook for the economy. In other words, clear communications play a crucial role in monetary policymaking.

The Benefits of Clear Communications in Monetary Policymaking

Clear communications can make monetary policy more effective by helping households and businesses make better economic and financial decisions. When policymakers are clear about the goals of monetary policy and the economic information that is important in their forecasts and policy decisions, and set policy in a systematic way, the public will have a better idea of how monetary policy is likely to change as economic conditions evolve. They will have a better sense of how policy will react not only to anticipated changes in conditions but also to unanticipated economic developments. Such knowledge helps households and firms make better saving, borrowing, investment, and employment decisions.

Achieving clearer monetary policy communications is better viewed as a journey rather than as a destination. Indeed, over the past two decades, the Fed has taken several steps on this journey to become more transparent, as the benefits of transparency have become better appreciated. It might surprise you to

know that it wasn't until 1994 that the FOMC began to explicitly announce changes in its fed funds rate target and later added more description about the state of the economy and the rationale for its decisions. Before 1994, there was no post-meeting FOMC statement; the public had to infer what the FOMC decided by looking at how it implemented policy through its open market operations in financial markets. Now, the post-meeting statement describes the FOMC's view of the state of the economy and the rationale for its decisions, as well as the votes of individual members and the preferred policy choices of any dissenters. Further context for the decisions is provided in the meeting minutes, which are released by the FOMC three weeks after the meeting, and a full transcript is released with a five-year lag. Outside of the blackout period around FOMC meetings, many of the FOMC participants present speeches – like this one – in which they share their perspectives on the economy and monetary policy with the public. In fact, as a Reserve Bank president, I view myself as a public servant and believe one of my duties is to explain the rationale for my decisions to the public.

In addition to speeches, the Chair testifies before subcommittees of both houses of Congress at two regularly scheduled monetary policy hearings a year, and at additional hearings when asked. And the Chair holds press briefings after four FOMC meetings per year. These briefings, which started in 2011, allow the Chair to expand on things that are too complex to discuss in the FOMC's relatively short post-meeting statement. The four meetings followed by press briefings are also ones at which the FOMC releases its Summary of Economic Projections, or SEP. I would like to spend the balance of my talk discussing the role of these projections in monetary policy communications and a recent enhancement the FOMC made to the SEP.

The Summary of Economic Projections

The Summary of Economic Projections, released four times a year, provides information on individual participants' economic projections, conditional on the path of policy that each participant sees as appropriate to promoting the FOMC's goals of price stability and maximum employment. It is worth

noting that unlike private-sector forecasts, the SEP policy path projections are not policy forecasts, but rather the individual participants' view of what constitutes appropriate policy. The projected economic variables included in the SEP are real output growth, the unemployment rate, inflation, and core inflation, that is, inflation excluding food and energy prices, which tend to be volatile, with appropriate policy given by the federal funds rate. The projections are for the current year and for up to three additional years, and also include the participants' estimates of the longer-run values for these variables.

I believe the SEP is an important part of monetary policy communications. Because monetary policy affects the economy with a lag, policymakers need to be forward looking, and the SEP provides the public with a sense of where FOMC participants see the economy evolving and the associated policy path consistent with that outlook.

Of course, it is important to put the FOMC's projections into proper context. The economy can evolve in unexpected ways. The FOMC is not prescient, nor should we expect it to be. At the end of the year, the media often writes a story on how the economy actually fared compared to what the FOMC was projecting at the start of the year, and when the misses are large, more than one story is written. For example, according to the central tendency of the projections, at the start of 2012, FOMC participants expected real GDP growth for the year to be 2.2 to 2.7 percent. It turns out that the economy grew at only a 1.3 percent pace that year, a forecast miss of around 1.0 to 1.5 percentage points. On the other hand, participants underestimated the improvement seen in the unemployment rate in 2012. At the start of the year, they projected an unemployment rate of 8.2 to 8.5 percent by the fourth quarter, but the unemployment rate ended up lower, at 7.8 percent. The FOMC also was more optimistic about growth at the start of 2015 than what came to pass, and inflation ran below projections over 2013-2015.

The public has to hold the FOMC accountable for its performance, but it should not hold monetary policymakers to an unrealistic standard. To evaluate the performance of FOMC projections, it is

important to put these forecast misses into context by remembering that even though forecast errors of this magnitude, both above and below actual outcomes, may seem large, they are the norm among economic forecasters, not the exception.³ Forecasting is a difficult task. The economy is constantly being buffeted by shocks that can lead economic conditions to evolve differently than anticipated. Moreover, our view of current economic conditions can be cloudy because many economic data are revised over time. Data revisions complicate forecasting and setting monetary policy in real time. University of Richmond's Dean Croushore is at the forefront of economic research into how forecasters and policymakers should incorporate data revisions into their work. Another reason forecasting is difficult is what economists call "model uncertainty": it isn't clear which model will best predict the future path of the economy at any given time. One way to approach this model uncertainty is to average across various models to develop a forecast. From a practical policymaking standpoint, I find that looking at forecasts from several models gives me a better sense not only of the most likely forecast but also the risks around the forecast. It is important to keep in mind that around any economic forecast there is typically quite a lot of uncertainty.

To illustrate the level of uncertainty around its projections, the FOMC will now be providing charts showing confidence bands, so-called fan charts, around the median projections, something I have advocated for quite some time.⁴ The future is inherently uncertain, and the confidence bands will give the

³ It is also worth remembering that the FOMC projections are conditional on what each participant views as the appropriate policy path and not necessarily what the participant views as the most likely policy path. For a clear and very useful explanation of what the FOMC projections are and are not, see Ben S. Bernanke, "[Federal Reserve Economic Projections: What Are They Good For?](#)" Brookings Institution blog post, November 28, 2016.

⁴ See Loretta J. Mester, "[Forward Guidance in Extraordinary Times, in Normal Times, and Betwixt the Two](#)," remarks at the Money Marketeers of New York University, Inc., New York, NY, November 6, 2014; Loretta J. Mester, "[Forward Guidance and Communications in U.S. Monetary Policy](#)," Imperial College, London, U.K., November 20, 2014; Loretta J. Mester, "[The Outlook for the Economy and Monetary Policy Communications](#)," National Association for Business Economics 2015 Economic Policy Conference, Washington, D.C., March 9, 2015; Loretta J. Mester, "[Recent Inflation Developments and Challenges for Research and Monetary Policymaking](#)," The 47th Konstanz Seminar on Monetary Theory and Monetary Policy, Insel Reichenau, Germany, May 12, 2016; Loretta J. Mester, "[Acknowledging Uncertainty](#)," Shadow Open Market Committee Fall Meeting, New York, NY, October 7, 2016; Loretta J. Mester, "[A Serenity Prayer for Monetary Policymakers](#)," Global Interdependence Center, Central Banking Series, Singapore, February 20, 2017.

public a better sense of the reasonable amount of variation to expect in forecasts and in outcomes relative to projections. The confidence bands are also a helpful reminder to policymakers to remain humble about our ability to know the future with much certainty.

Figures 1 to 4 show 70 percent confidence intervals (in light blue and teal) around the median projections from the FOMC's March SEP. If the level of uncertainty is similar to that experienced in the past and the upside and downside risks around the forecast are broadly balanced, then there's a 70 percent probability that the actual outcomes will lie within the band. For example, for real GDP growth, a 70 percent confidence interval around the forecast is about ± 1.6 percentage points for this year and a little over ± 2.0 percentage points for each of the following two years. The intervals tend to fan out over time because there is increasingly more opportunity for unforeseen shocks to occur. The miss of the FOMC's early 2012 forecast that I referred to earlier was within the interval. The confidence bands around forecasts of unemployment and inflation are also pretty wide. So the FOMC's forecast performance has been quite reasonable by this metric.

The policy path in the SEP receives considerable scrutiny. In March, there was essentially no change in the median policy path compared to December because there was little change in the economic outlook. The median projection for the federal funds rate is 1.4 percent at the end of this year, 2.1 percent at the end of next year, and 3 percent at the end of 2019, which is its median longer-run value. The SEP indicates that most participants expect that an upward path of policy will be appropriate based on their current assessment of the outlook.

The federal funds rate path differs from the other variables in the SEP because policymakers choose the path. But because there is uncertainty around the economic outlook, there is also uncertainty around the appropriate policy path. The confidence band is a reminder that the median policy path in the SEP is not meant to be a firm commitment on the part of the FOMC. Instead, policy should be expected to respond

to changes in economic and financial conditions that materially affect the medium-run outlook. As you can see, the range of reasonable outcomes for the policy path is actually quite wide, and considerably wider than some of the variation we've seen in the SEP policy path over time, even though those small shifts have often drawn considerable media attention. The dispersion in forecasts across participants also receives attention, but as you can see in the figures, that dispersion – shown in dark blue for the economic variables and in the famous dot plot for the fed funds rate – is quite a bit narrower than the degree of uncertainty around the forecasts.

Conclusion

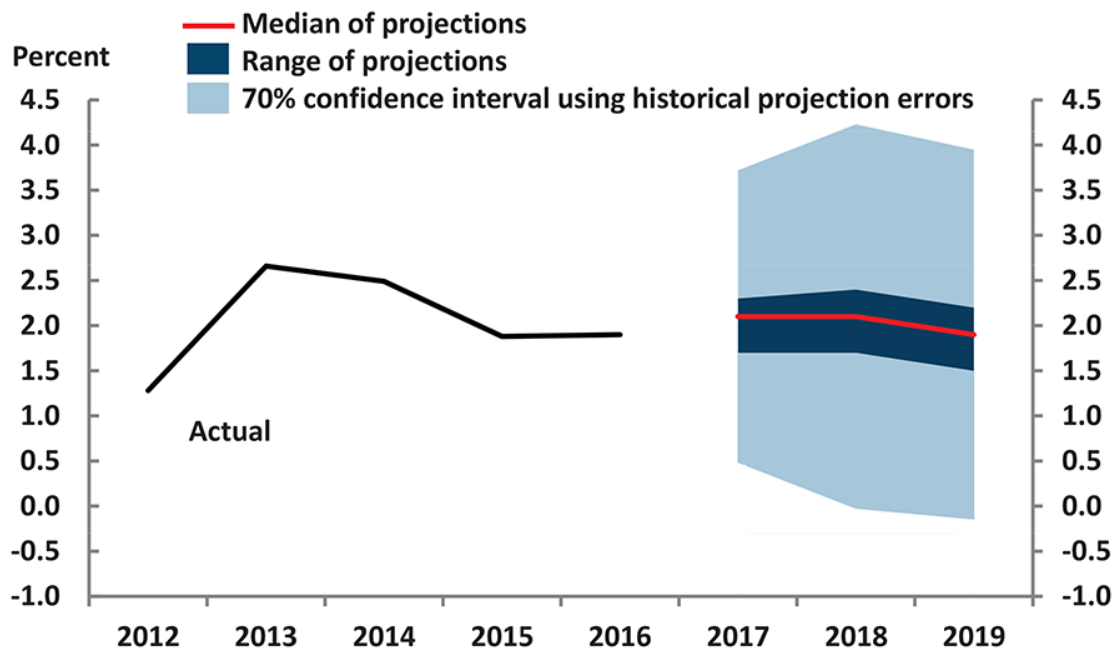
The addition of fan charts to the FOMC's Summary of Economic Projections is the most recent step the Committee has taken on its journey of increased transparency and better communication. The FOMC will continue to strive for further improvements because when the public has a better understanding of how monetary policy decisions are made, the policy itself is more effective, and the public will have the information it needs to hold us accountable for our decisions. This accountability provides a crucial foundation for allowing monetary policymakers to pursue the congressionally mandated goals of price stability and maximum employment free from short-run political considerations. This independence of monetary policy decisions results in better economic outcomes. Because our policy decisions depend on the economic outlook, it is important for the FOMC to provide as much information as we can on our current assessment of the outlook, at the same time explaining that the forecast can change because economic conditions can evolve differently than expected.

Let me conclude with something former Fed Chair Alan Greenspan once said about monetary policy: "Because monetary policy works with a lag, we need to be forward looking, taking actions to forestall imbalances that may not be visible for many months. There is no alternative to basing actions on forecasts, at least implicitly. It means that often we need to tighten or ease before the need for action is evident to the public at large, and that policy may have to reverse course from time to time as the

underlying forces acting on the economy shift. This process is not easy to get right at all times, and it is often difficult to convey to the American people, whose support is essential to our mission.”⁵ Alan Greenspan made these remarks more than 20 years ago, yet they strike me as just as relevant today as they were then.

⁵ Alan Greenspan, “The Challenge of Central Banking in a Democratic Society,” remarks at the Annual Dinner and Francis Boyer Lecture of the American Enterprise Institute for Public Policy Research, Washington D.C., December 5, 1996.

**Figure 1. FOMC's Summary of Economic Projections:
Change in Real GDP (Q4/Q4)**



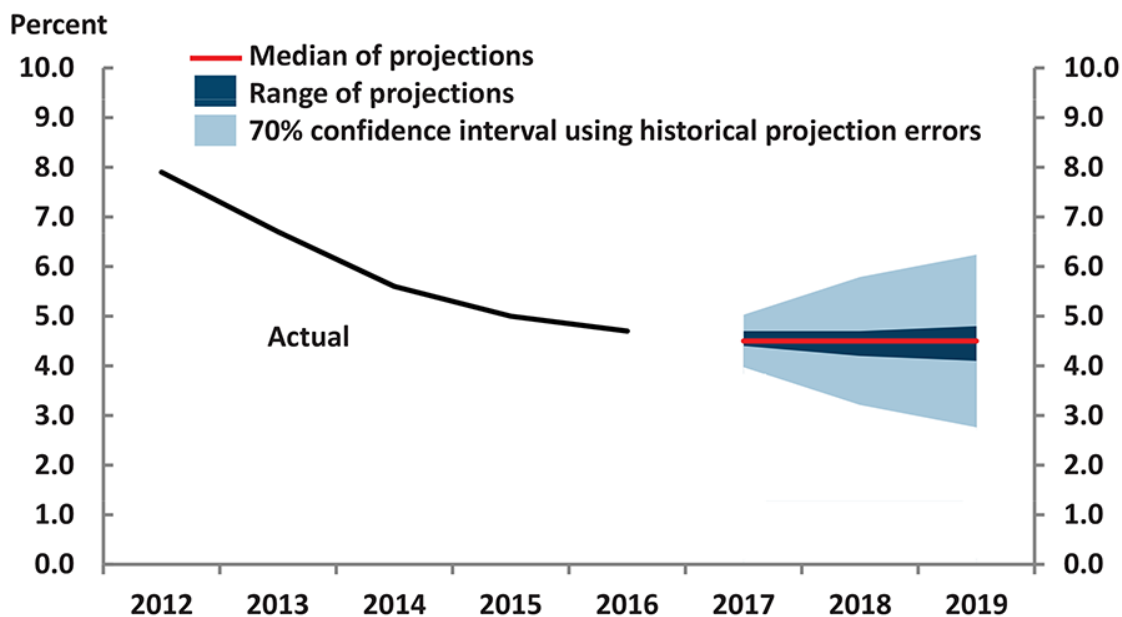
Loretta J. Mester, "The Economic Outlook and Monetary Policy Communications," March 21, 2017.

Source: FOMC's Summary of Economic Projections, March 2017.

Fan chart based on historical forecast errors from D. Reifschneider and P. Tulip,
Board of Governors FEDS Working Paper 2017-020 (Feb. 24, 2017).

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**Figure 2. FOMC's Summary of Economic Projections:
Unemployment Rate (Q4 avg)**



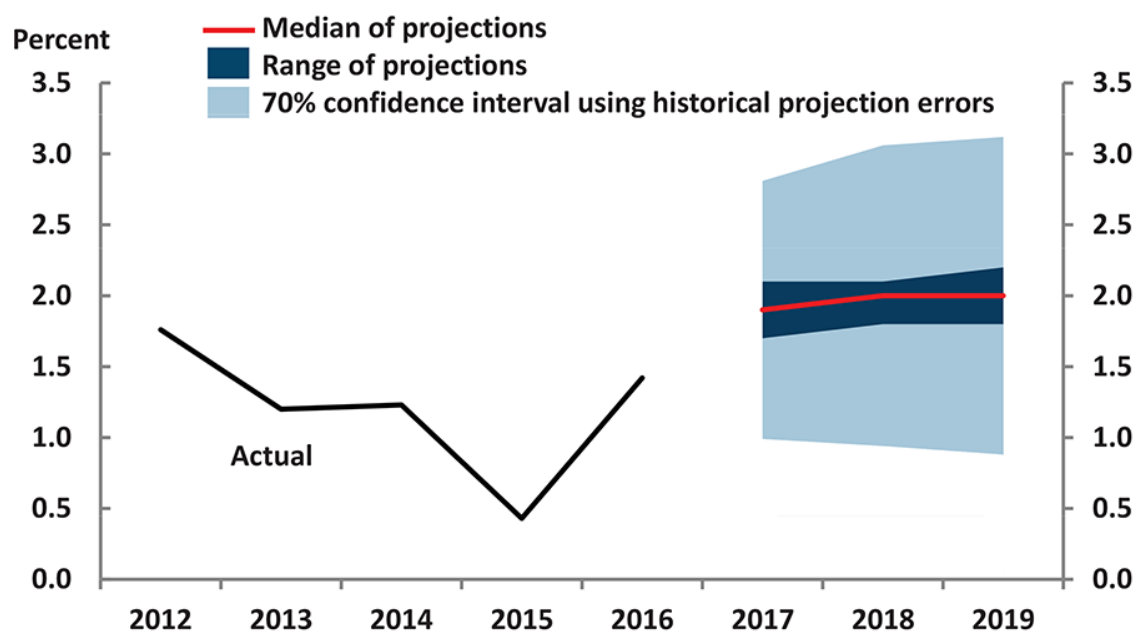
Loretta J. Mester, "The Economic Outlook and Monetary Policy Communications," March 21, 2017.

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**Figure 3. FOMC's Summary of Economic Projections:
PCE Inflation (Q4/Q4)**



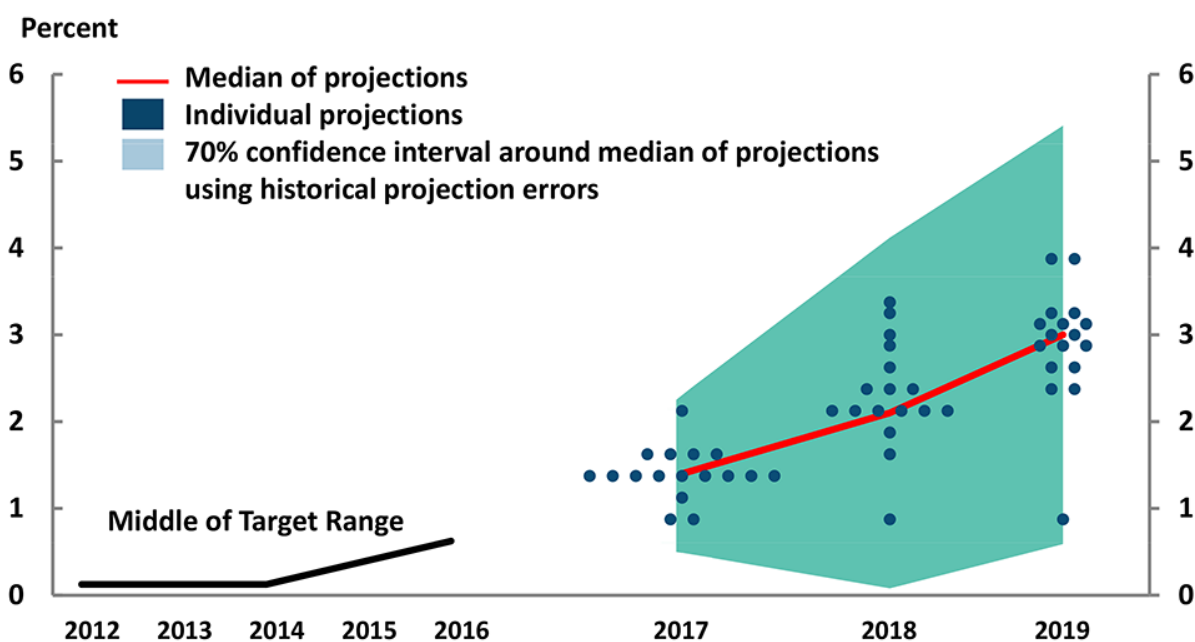
Loretta J. Mester, "The Economic Outlook and Monetary Policy Communications," March 21, 2017.

Source: FOMC's Summary of Economic Projections, March 2017.

Fan chart based on historical forecast errors from D. Reifschneider and P. Tulip,
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**Figure 4. FOMC's Summary of Economic Projections:
Federal Funds Rate (year-end)**



Loretta J. Mester, "The Economic Outlook and Monetary Policy Communications," March 21, 2017.

Source: FOMC's Summary of Economic Projections, March 2017.

Fan chart based on historical forecast errors from D. Reifschneider and P. Tulip,
Board of Governors FEDS Working Paper 2017-020 (Feb. 24, 2017).

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