conferences that some of the best discussions take place during networking breaks, and I understand that some great relationships have already been built through these proceedings the past three years.

I look forward to another great conference this year. I thank you all for joining us either here in person or via our interactive webcast and look forward to seeing how the discussions here can help foster a stronger banking and regulatory system, leading to stronger communities and ultimately leading to a stronger economy.

- **August 25, 2016**. Article. "The St. Louis Fed's New Approach to Near-Term Projections," *St. Louis Fed On the Economy*.

The St. Louis Fed's New Approach to Near-Term Projections

In June, the Federal Reserve Bank of St. Louis announced changes to its approach to near-term projections for the U.S. macroeconomy and for monetary policy. The main difference between the old and new approaches is the projected path for the federal funds rate target, or the policy rate. The projected path was relatively steep under our old narrative (rising several percentage points by the end of 2018, according to our forecast from March), whereas it is essentially flat (0.63 percent) over a forecasting horizon of two and a half years under our new narrative. This blog post will explain our thinking behind the new narrative and how we arrived at this new projection for the policy rate path.

The Dot Plot
Once a quarter, the Federal Open Market Committee (FOMC) releases projections for key macroeconomic variables—including real gross domestic product (GDP) growth, unemployment and inflation—as well as for monetary policy. The FOMC participants show on the so-called dot plot what they think the appropriate federal funds rate will be in each of the next several years and in the long run. (I stopped providing a long-run forecast in June, when the Summary of Economic Projections was last put together.)

The dot plot has consistently suggested that a series of rate increases would occur over the forecast horizon. However, the actual pace of increases has

been much slower—with only one increase since the third quantitative easing program ended in late 2014. That increase, which occurred in December 2015, took the federal funds rate target to a range of 0.25 to 0.50 percent. The mismatch between what the FOMC is saying via the dot plot and what the FOMC is doing is causing confusion for many and eroding the credibility of the FOMC.

The policy rate dot plot, in my opinion, puts too much weight on the idea that we know where the economy is headed. Instead, we need a manageable way to express the uncertainty surrounding medium- and longer-term outcomes for the economy. [1]That is where the St. Louis Fed's new narrative comes in.

Old Narrative

The old narrative of the past five years or so assumed that key macroeconomic variables would converge to the average of their past values and was based on the idea that there is a single, long-run steady state for the economy. In the old narrative, the policy rate would have to rise toward its steady-state value (about 3.5 percentage points higher than it currently is, according to our March estimate) once inflation and unemployment gaps narrowed to zero—that is, once inflation neared the Fed's 2 percent target and unemployment neared the natural rate of unemployment. Those gaps are, indeed, now close to zero, which is why we had projected a rising policy rate over the forecast horizon.

As for the key macroeconomic variables, our old narrative called for real GDP to grow at an above-trend pace, for the unemployment rate to continue declining and for inflation (net of commodity-price effects) to exceed 2 percent. We viewed the extremely low policy rate as stimulating the economy, thus driving these forecasts.

While the output and unemployment parts of the old narrative worked well from the second half of 2013 through the first half of 2015, the inflation we expected to see during that same period did not materialize.

Now, however, the previous narrative has likely outlived its usefulness. Output growth seems to have slowed to a below-trend pace. As a result, the

unemployment rate may not fall much further. Finally, inflation—as measured by the Dallas Fed trimmed-mean personal consumption expenditures (PCE) inflation rate—is rising only slowly, although it is close to target.

New Narrative

For our new narrative, we wanted to more explicitly account for the uncertainty about possible outcomes for the economy. Instead of assuming that the economy will converge to a single, long-run steady state, we now think in terms of "regimes" that the economy might visit. 2These regimes are generally viewed as persistent; switches to other regimes are not forecastable. Under this new narrative, optimal monetary policy depends on which regime the economy is in. Finally, because there is no long-run steady state in this new narrative, there are no long-run projections.

The nature of the regimes is determined by three key fundamental factors:

- Productivity growth (high or low)
- The real interest rate on short-term government debt (high or low)
- The state of the business cycle (expansion or recession)

To clarify, the term "regime" can refer to any of these states or to the combination of them.

Productivity Growth

Average labor productivity growth has been low for the past several years. Therefore, we view this as a "low-productivity-growth regime." Productivity for the total economy grew by an average of 0.4 percent from the second quarter of 2013 through the first quarter of 2016. In comparison, productivity growth for the total economy averaged 2.3 percent from the first quarter of 1995 through the fourth quarter of 2005.

Real Interest Rate

The real rates of return that are most closely linked to monetary policy are the ones on safe assets. The real rate of return on short-term government debt, which we refer to as $r^\dagger$("r-dagger"), has been exceptionally low. We

view this as a “low-real-rate regime.”

Over the past three years, the real return on one-year government debt has averaged negative 1.35 percent, which is well below the average of 0.75 percent from December 2001 to November 2007. Our interpretation is that while the low real rates of return on government paper (safe assets) reflect an unusually high liquidity premium on government debt, they do not reflect low returns throughout the economy.

State of the Business Cycle

Although recession is a possibility, we are currently in a “no-recession regime.” Given the current state of the U.S. economy, we do not have a reason to forecast a recession in the near term.

Current Regime

To summarize, the current regime appears to be characterized by low productivity growth (and hence low GDP growth), a low real interest rate on short-term government debt and a relatively low probability of recession in the near term. We assume we will remain in this regime through the forecasting horizon of two and a half years.

Forecast Based on the New Narrative

The new approach delivers a simple forecast over the next two and a half years. The St. Louis Fed’s forecast is for real GDP growth of 2 percent, unemployment of 4.7 percent and Dallas Fed trimmed-mean PCE inflation of 2 percent. A regime-dependent projected policy rate of 0.63 percent supports these forecasts.

How did we get to this policy recommendation? We can use a Taylor-type rule, which depends on the inflation gap, the unemployment gap, $r^\dagger$ and expected inflation. We already assumed those gaps are close to zero, leaving us with the policy rate equal to the sum of $r^\dagger$ and expected inflation. In this case, it would be negative 1.35 percent plus 2 percent, or 0.65 percent. With one more 0.25-percentage-point increase in the target range for the federal funds rate, the midpoint of the range would be 0.63 percent.

There is some upside risk associated with this projected policy rate. For instance, the economy could switch to the high-productivity-growth regime or to the high-real-rate regime. If the economy does switch to another regime, the policy rate path would have to change appropriately. After all, monetary policy remains data-dependent.

Any views expressed here are my own and do not necessarily reflect the views of the Federal Open Market Committee.

Notes and References

1In this case, the medium term and longer term can be thought of as two to three years and five to six years, respectively.

2In this context, the "regime" language comes from the nonlinear econometrics literature. For example, see Hamilton, James D. "A New Approach to the Economic Analysis of Nonstationary Time Series and the Business Cycle," Econometrica, March 1989, Vol. 57, Issue 2, pp. 357-384; and Kim, Chang-Jin and Nelson, Charles R., State-Space Models with Regime Switching, MIT Press, 1999.

Additional Resources

• From the President: [The St. Louis Fed's New Characterization of the Outlook for the U.S. Economy](https://www.stlouisfed.org/from-the-president/commentary/2016/new-characterization-outlook-economy)
• From the President: [Normalization: A New Approach](https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2016/normalization-a-new-approach)
• Economic Synopses: [Secular Stagnation and Returns on Capital](https://research.stlouisfed.org/publications/economic-synopses/2015/08/18/secular-stagnation-and-returns-on-capital/)

This blog offers commentary, analysis and data from our economists and experts. Views expressed are not necessarily those of the St. Louis Fed or Federal Reserve System.

Email Us

All other [blog-related questions](mailto:on-the-economy@stls.frb.org)

- **August 17, 2016**. Presentation. "Normalization: A New Approach," Wealth and Asset Management Research Conference, Olin Business School, Washington University in St. Louis.
  Presentation (pdf) (bullard-cfar-stlouis-17-aug-2016pdf) | Press Release.

  Normalization: A New Approach

  August 17, 2016

  While addressing a research conference in St. Louis on wealth and asset management, President James Bullard explained the reasoning behind the St. Louis Fed's new approach to near-term U.S. macroeconomic and monetary policy projections. The old narrative assumed that the economy is converging to a single, long-run steady state, with key macroeconomic variables tending toward an average of their past values. In the new narrative, the concept of a single, long-run steady state is abandoned. Instead, there is a set of possible "regimes" that the economy may visit, which are generally viewed as persistent. While switches between regimes are possible, they are not forecastable. Bullard said that the projected policy rate path is the main difference in the new approach: The policy rate under the old narrative would likely rise over the forecast horizon to be consistent with its steady-state value, whereas the policy rate under the new narrative would likely remain essentially flat over the forecast horizon to remain consistent with the current regime.

  St. Louis Fed's Bullard Discusses New Approach to Monetary Policy Normalization

  ST. LOUIS – Federal Reserve Bank of St. Louis President James Bullard discussed ["Normalization: A New Approach"](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/bullard-cfar-stlouis-17-aug-2016.pdf)on Wednesday during the Wealth and Asset Management Research Conference at the Olin Business School at