webpage at www.stlouisfed.org/from-the-president/key-policy-topics.

October 24, 2016. Presentation. "One Equation to Understand the Current Monetary Policy Debate," Association for University Business and Economic Research (AUBER), 2016 Fall Conference, Fayetteville, Ark. Presentation (pdf) (bullard_auber_fayetteville_oct_24_2016pdf) | Press Release.

One Equation to Understand the Current Monetary Policy Debate

October 24, 2016

Speaking in Fayetteville, Ark., St. Louis Fed President James Bullard deconstructed a Taylor-type rule to help explain the current monetary policy debate. He also used this boiled-down equation to explain the St. Louis Fed's projected policy rate path of 0.63 percent over the forecast horizon. He noted that with unemployment and inflation near their long-run values, the recommended policy rate from a Taylor-type rule depends mostly on the real (inflation-adjusted) safe rate of return. Furthermore, he added that real safe rates of return are exceptionally low and are not expected to rise soon. This means, in turn, that the policy rate should be expected to remain exceptionally low over the forecast horizon, Bullard said. His presentation was to the Association for University Business and Economic Research.

St. Louis Fed's Bullard Discusses "One Equation to Understand the Current Monetary Policy Debate"

FAYETTEVILLE, Ark. – Federal Reserve Bank of St. Louis President James Bullard discussed ["One Equation to Understand the Current Monetary

Policy Debate"](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/bullard_auber_fayetteville_oct_24_2016.pdf)on Monday at the fall conference of the Association for University Business and Economic Research (AUBER).

Bullard noted that the Federal Open Market Committee (FOMC) operates by setting a short-term nominal interest rate (i.e., the federal funds rate target), which is also referred to as the policy rate. "The current policy rate setting is just 38 basis points, extraordinarily low by postwar historical standards. The FOMC is considering raising the policy rate to a somewhat higher level," he said, adding that "the St. Louis Fed's rate path projection is much flatter than the rest of the Committee."

Using a Taylor-type policy rule, Bullard showed how the equation conveys the essence of the current monetary policy debate. He also discussed how the St. Louis Fed's new regime-based approach to near-term U.S. macroeconomic and monetary policy projections, which was adopted in June, fits within this one-equation format. 1

"The bottom line: Low interest rates are likely to continue to be the norm over the next two to three years," Bullard said.

The Equation

To help illustrate this situation, Bullard described a simple Taylor-type rule that could be used to provide a recommended value of the FOMC's policy rate. He used the equation: i = r† + π* + Ï•π π GAP + Ï•u u GAP

Of the terms on the right, Bullard said that r †is the most interesting in the current macroeconomic environment. He proceeded to show why by explaining that the final two terms could be dropped from the calculation based on current economic conditions.

The term u GAP represents the distance between the unemployment rate and what the FOMC views as a normal rate of unemployment, Bullard explained. "This gap is essentially zero today, so this term falls out of the calculation," he added.

Next, the term π represents the distance between the current inflation rate and the FOMC's inflation target of 2 percent, Bullard said. "Inflation has been below target in recent years, due in part to commodity-price effects. Net of those effects, this gap is relatively close to zero today as well," he explained. "As a consequence, this term also falls out of the calculation." GAP

Moving on to the π^* term, Bullard said this represents the FOMC's inflation target of 2 percent, or 200 basis points. That leaves the Taylor-type rule as follows: $i = r\dagger + 200$.

Finally, the term $r\dagger$ is the real interest rate on safe, short-term assets like short-term government debt, Bullard explained. "While the Fed is thought to be able to influence real rates over short periods of time, perhaps a few quarters, over longer time periods real rates are determined by market forces."

He noted that one simple way to measure the real return on short-term safe assets is to consider the one-year nominal Treasury security and to subtract a one-year smoothed inflation rate from it, which produces an ex-post one-year real return on a safe asset.

The real rate of return on safe assets measured this way has been more than 200 basis points lower in recent years than it was during the 2001-2007 expansion, he said. The average from July 2013 to August 2016 was -1.34 percent, or -134 basis points. "This goes a long way toward explaining why the policy rate is low today," he added. He also noted that $r\dagger$ is unlikely to change over the forecast horizon and, thus, can be considered a "low-real-safe-rate regime."

Accounting for all of the terms, the Taylor-type rule becomes $i = -134 + 200 = 66$. "The St. Louis Fed's conclusion is that a single 25-basis-point increase in the policy rate—from 38 to 63 basis points—will get us very close to the Taylor rule value over the forecast horizon," Bullard said.

Why Are Real Returns Low?

The reasons behind the extremely low real rate of return on safe assets have been widely debated, Bullard noted, adding, "Real rates of return on safe assets have been declining relative to the real return on capital in the U.S. for several decades." In addition, he cited two factors that are putting downward pressure on real safe rates of return. One is that the U.S. is in a low-productivity-growth regime. The other is that the U.S. is also in a high-liquidity-premium regime, in which investors are willing to pay premium prices for safe assets like government debt.

"Real safe rates of return are exceptionally low at present and are not expected to rise soon," Bullard said. "This means, in turn, that the policy rate should be expected to remain exceptionally low over the forecast horizon," he concluded.

1For more discussion of the St. Louis Fed's new approach, see Bullard's webpage at www.stlouisfed.org/from-the-president/key-policy-topics.

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- **October 13, 2016**. Article. ["Higher GDP Growth in the Long Run Requires Higher Productivity Growth,"](#) Federal Reserve Bank of St. Louis *The Regional Economist*, October 2016. This article also appeared in the *St. Louis Fed On the Economy* blog, October 17, 2016.

Higher GDP Growth in the Long Run Requires Higher Productivity Growth

Real gross domestic product (GDP) growth in the U.S. has been relatively slow since the recession ended in June 2009. It has averaged about 2 percent over the past seven years, compared with roughly 3 percent to 4 percent in the three previous expansions. At this point, the slower growth during the