The Low Real Interest Rate Regime Post-Election: Is There a Switch?

James Bullard

President and CEO, FRB-St. Louis

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

Introduction

This talk

- In this talk, I will discuss how the current state of the U.S. economy and monetary policy might be viewed in terms of a "low-safe-real-interest-rate regime."
- I will then turn to discuss the possible impact of new policies currently being developed in post-election Washington on the low-safe-real-interest-rate regime.
- I will conclude that, properly executed, the new set of policies may have some impact.

A new regime-based approach

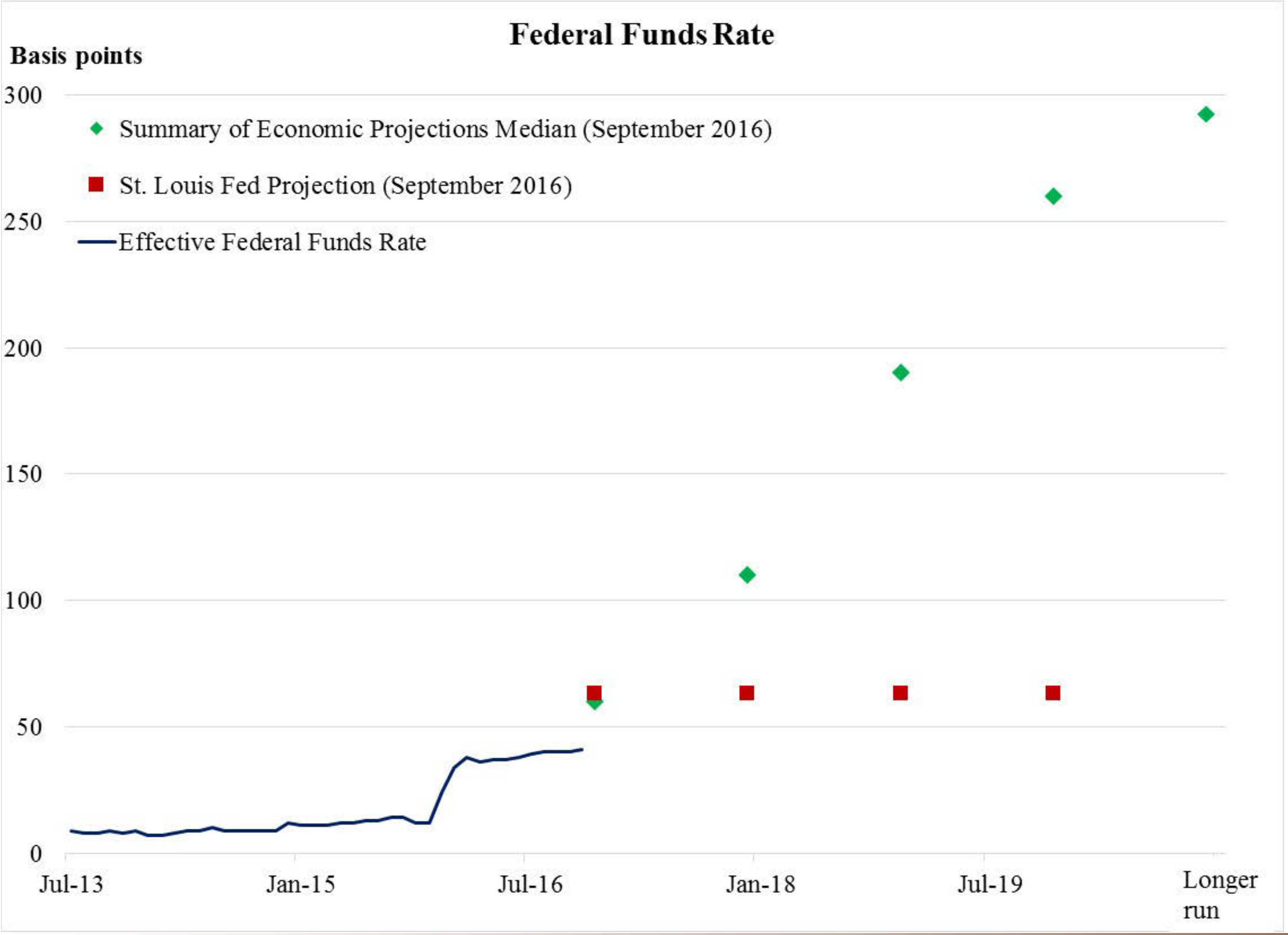
- The St. Louis Fed recently changed its approach to near-term U.S. macroeconomic and monetary policy projections.
  - J. Bullard, "Safe Real Interest Rates and Fed Policy," remarks delivered at the Commerce Bank 2016 Annual Economic Breakfast, St. Louis, Nov. 10, 2016,
  - J. Bullard, "One Equation to Understand the Current Monetary Policy Debate," remarks delivered at AUBER 2016 Fall Conference, Fayetteville, Ark., Oct. 24, 2016.
  - J. Bullard, "Normalization: A New Approach," remarks delivered at the Wealth and Asset Management Research Conference, St. Louis, Aug. 17, 2016.
  - Wharton Business Radio interview, Aug. 12, 2016.
  - J. Bullard, "A Tale of Two Narratives," remarks delivered at the Gateway Chapter of NABE, St. Louis, July 12, 2016.
  - J. Bullard, "A New Characterization of the U.S. Macroeconomic and Monetary Policy Outlook," remarks delivered at the Society of Business Economists Annual Dinner, London, U.K., June 30, 2016.
  - J. Bullard, "The St. Louis Fed's New Characterization of the Outlook for the U.S. Economy," announcement, June 17, 2016.
  - All are available on my webpage under "Key Policy Papers."

The Policy Rate

The policy rate

- The Federal Open Market Committee (FOMC) operates by setting a short-term nominal interest rate, which I will call the policy rate. This rate then influences all other nominal interest rates.
- 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.
- The St. Louis Fed's rate path projection is much flatter than those of the rest of the Committee.

The policy rate path dichotomy



Source: Federal Reserve Board and author's calculations. Last observation: November 2016.

Why recommend such a low policy rate?

- The St. Louis Fed's policy rate recommendation is based on a regime-based conception of real interest rates.
- We can think in terms of two real interest rate regimes:
  - A high regime that prevailed during the 1980s and 1990s.
  - A low regime that prevails today.
- When unemployment and inflation are near their respective longer-run levels, as they are today, the policy rate should be equal to the real rate plus an adjustment for inflation.
- Because we are in the low-real-rate regime, the St. Louis Fed's policy rate recommendation comes out to a low number.

Road map

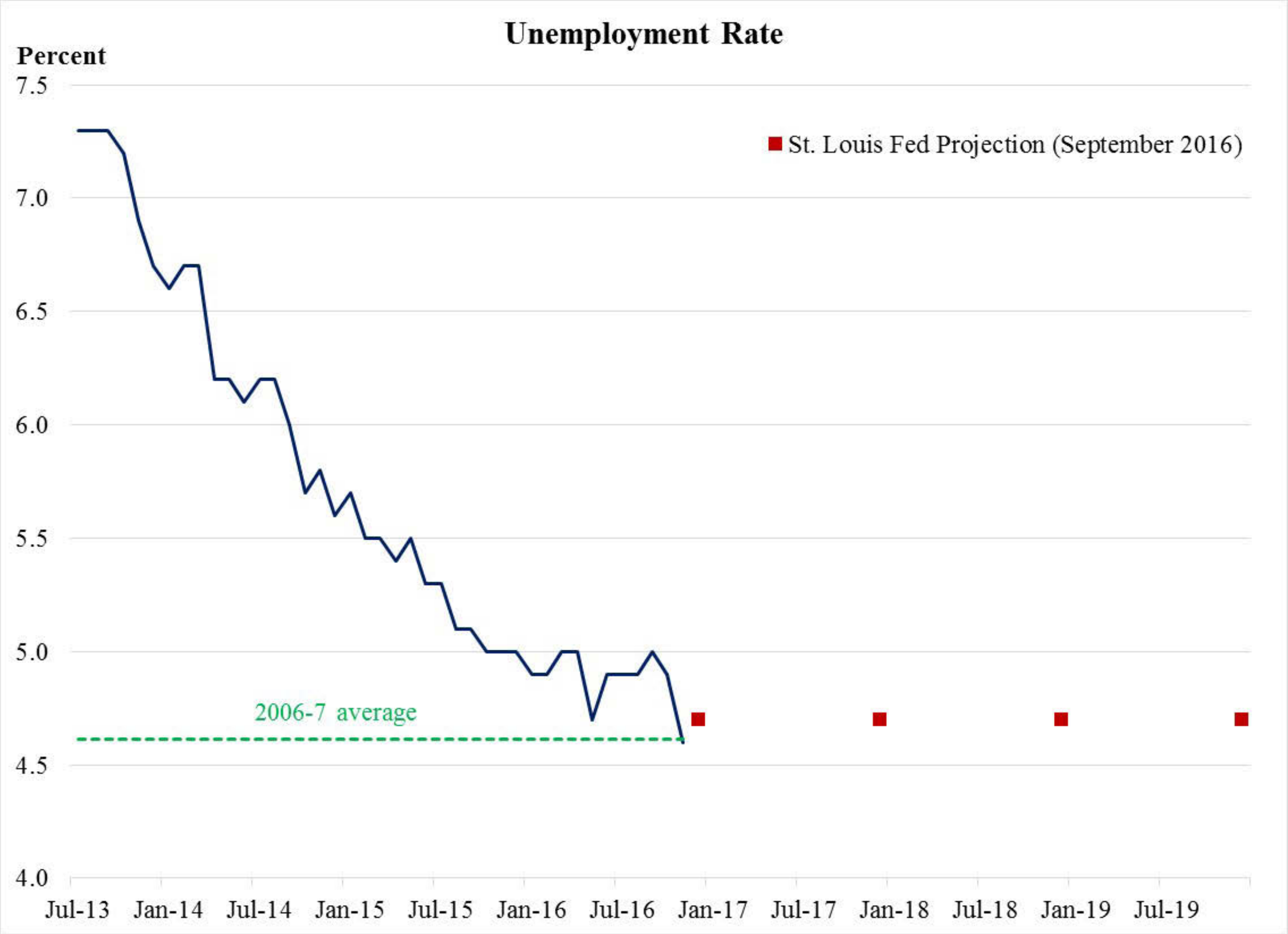
- Next, I will turn to establishing that inflation and unemployment are close to their longer-run values.
- After that, I will describe some reasons why I think we are in a low-real-interest-rate regime.
- Finally, I will describe how new policies being developed in Washington may or may not affect this analysis.

Gaps Close to Zero

Unemployment gap close to zero

- If unemployment was far from its longer-run value, there would be a case to make an adjustment to the policy rate recommendation.
- However, the current value of the unemployment rate, 4.6 percent, is quite close to the FOMC's estimate of its longer-run value outside of a recession.
- One could consider broader measures of labor market performance, such as a labor market conditions index, but the conclusion would be the same.

Unemployment has declined to a low level

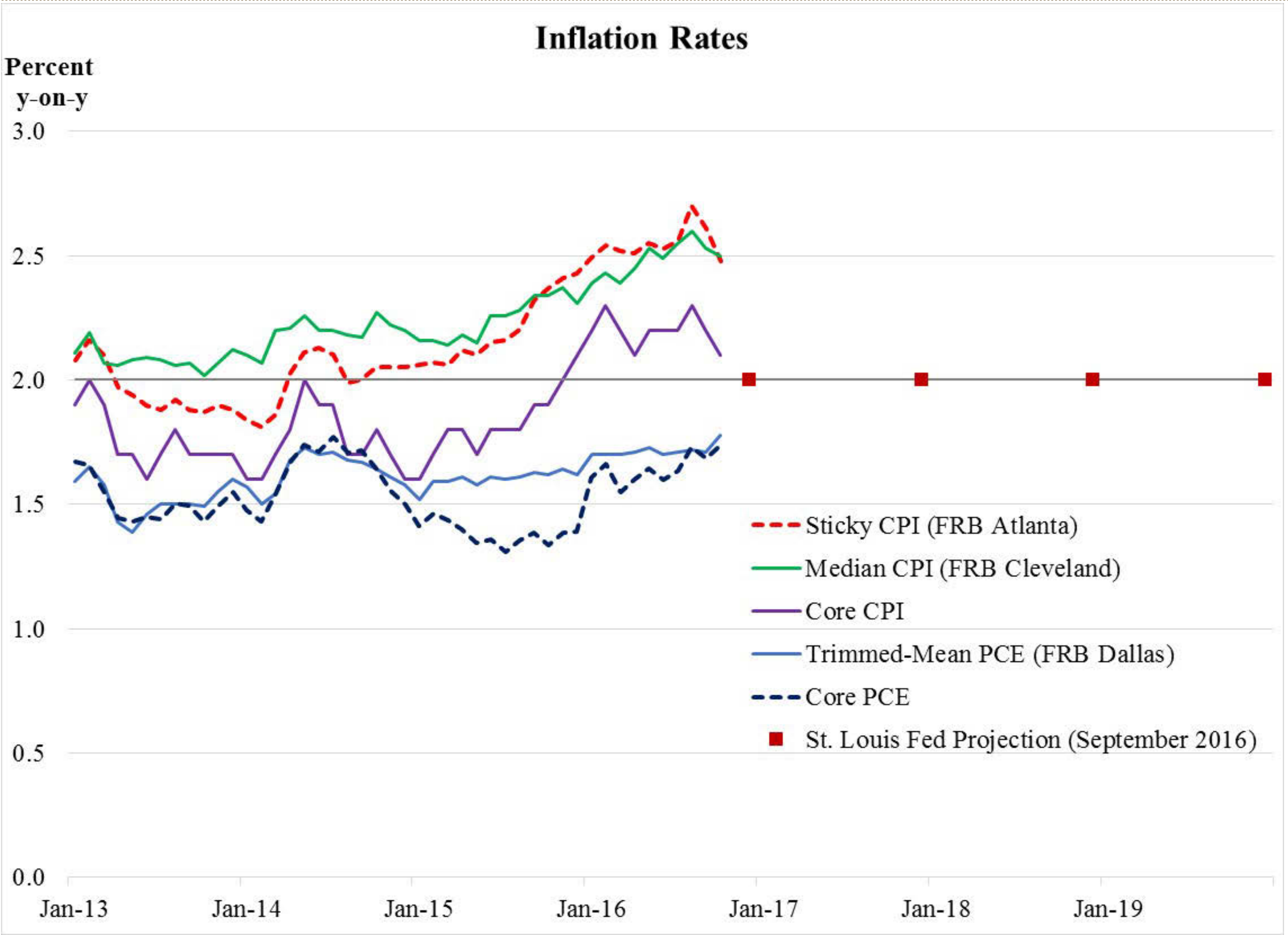


Source: Bureau of Labor Statistics and author's calculations.
Last observation: November 2016.

Inflation close to target

- If inflation was far from the Committee's target of 2 percent, that would also create a case for making an adjustment to the policy rate recommendation.
- Inflation has been below target in recent years, due in part to commodity-price effects.
- However, net of commodity-price effects, inflation is close to target, and headline inflation is expected to return closer to target in the quarters ahead.

Smoothed measures of U.S. inflation are close to 2 percent



Source: Bureau of Labor Statistics, FRB Cleveland, FRB Atlanta, Bureau of Economic Analysis, FRB Dallas and author's calculations. Last observations: October 2016.

A standard recommendation

- With inflation and unemployment close to longer-run levels, a standard recommendation is to set the policy rate equal to the real interest rate plus the inflation target.
- The FOMC's inflation target is 2 percent, or 200 basis points.
- But what is a reasonable value for an appropriate real rate of return?

The Short-Term Real Interest Rate

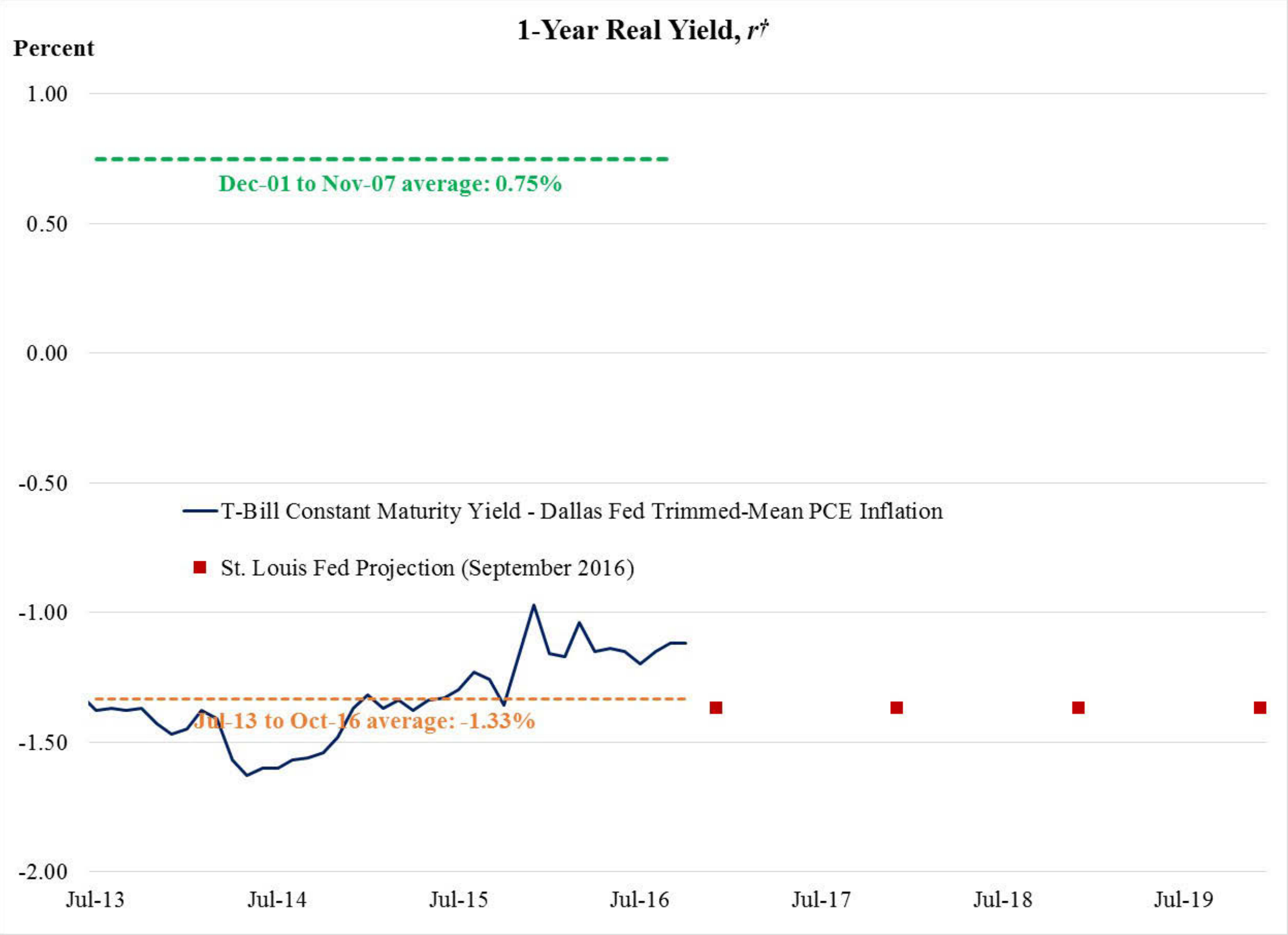
The real interest rate

- The most relevant real interest rates for monetary policy purposes are the real rates on safe, short-term assets like short-term government debt.
- *While the Fed is thought to be able to influence real rates over short periods of time (perhaps a few quarters), real rates are determined by market forces over longer time periods.*

Measuring the real interest rate

- One simple way to measure the real return on short-term safe assets is to consider the one-year nominal Treasury security and subtract a one-year smoothed inflation rate from it.
- This produces an ex-post one-year real return on a safe asset.
- There are other methods of calculation, but this one is simple, model-free, and uses a relatively short maturity that allows use of year-over-year inflation measures.

The low- and high-real-rate regimes



Source: Federal Reserve Board, FRB of Dallas and author's calculations. Last observation: October 2016.

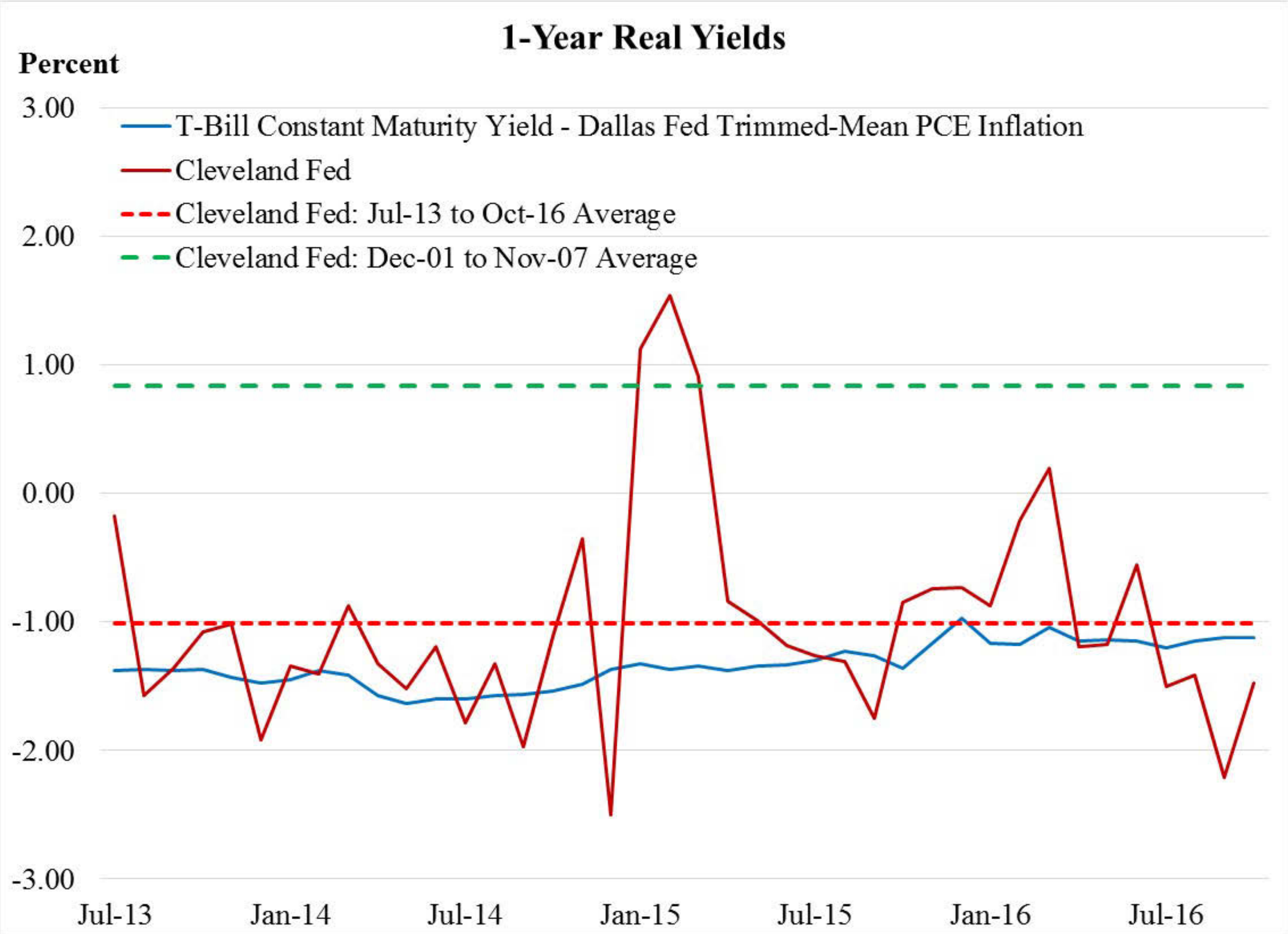
Safe real returns are a lot lower than they used to be

- The real rate of return on safe assets measured this way has been more than 200 basis points lower in recent years as compared to the 2001-2007 expansion.
- This goes a long way toward explaining why the policy rate is low today.
- Furthermore, it seems unlikely that the real rate of return on safe assets will return to its historical level over the next two to three years.
- At the St. Louis Fed, we call this a "low-safe-real-rate regime."

An alternative measure of the safe real interest rate

- Another way to measure the real return on short-term safe assets is to consider a factor model of real yields, estimated using nominal yields, survey inflation forecasts and inflation swap rates.
  - See J. Haubrich, G. Pennacchi and P. Ritchken, 2012, "Inflation Expectations, Real Rates, and Risk Premia: Evidence from Inflation Swaps," *RFS*, 25(5), 1588-629.
  - Up-to-date estimates are provided by the Cleveland Fed.
- This is a measure of a one-year expected real return on a safe asset.
- The relevant measure of inflation for this real return is CPI inflation, not PCE inflation.

Ex-ante and ex-post real yields



Source: FRB of Cleveland, Federal Reserve Board, FRB of Dallas and author's calculations.
Last observation: October 2016.

Real returns are a lot lower than they used to be

- The real rate of return on safe assets measured this way has been more than 180 basis points lower in recent years as compared to the 2001-2007 expansion.
- This evidence remains consistent with the idea of a "low-safe-real-rate regime."

A policy recommendation

- I have argued that inflation and unemployment are close to their longer-run values.
- I have also argued that the short-term real interest rate is low and is unlikely to change over the forecast horizon.
- Using the standard recommendation, we obtain
  - *Policy rate = -133 + 200 = 67*
- I conclude that a single 25-basis-point increase in the policy rate–from 38 to 63 basis points–will get us very close to the standard recommended value over the forecast horizon.

Why Are Real Returns Low?

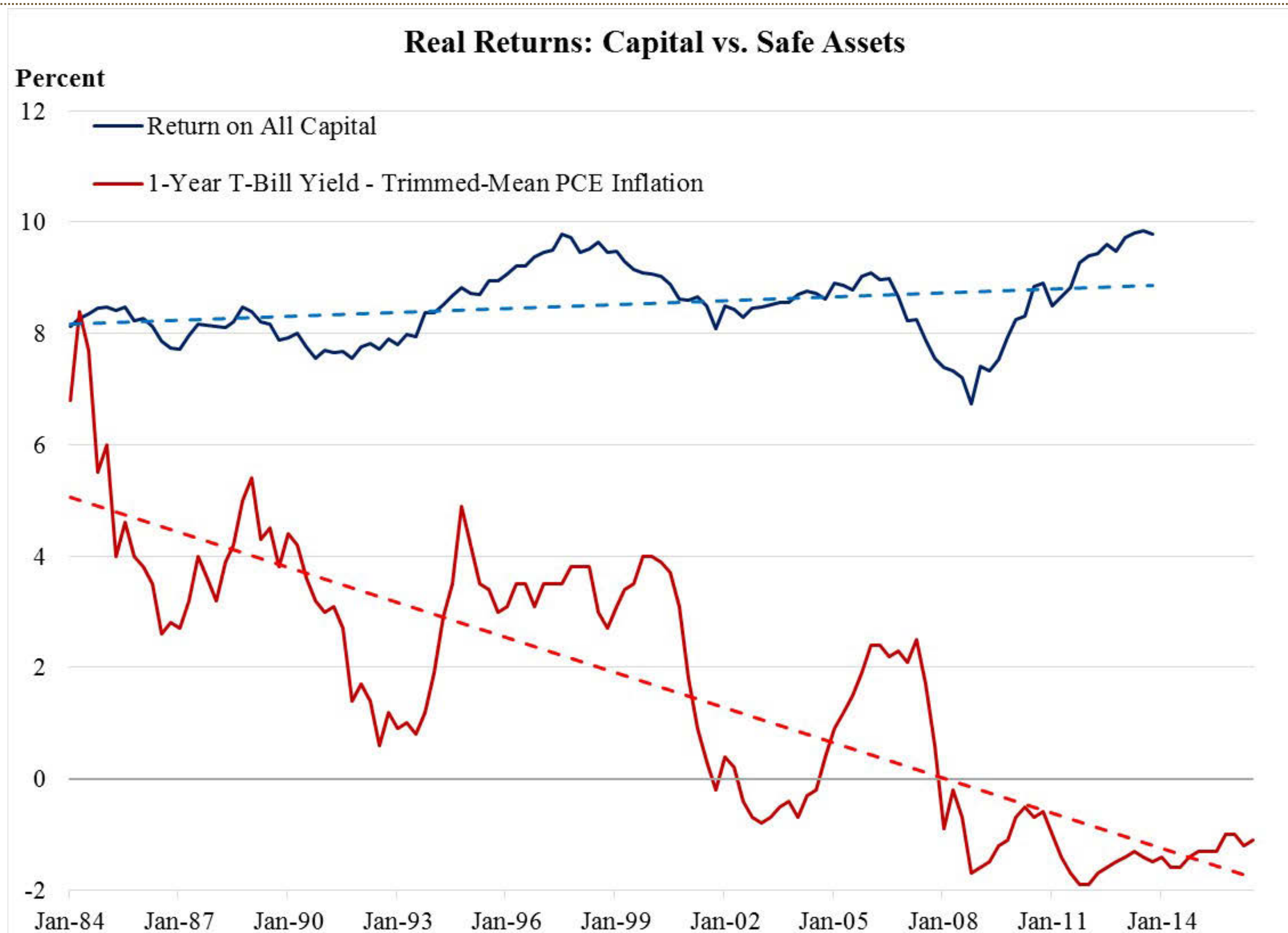
Why are safe real returns low?

- The reasons behind the exceptionally low real rate of return on safe assets have been widely debated.
- I will focus on three factors that may be putting downward pressure on safe real rates of return:
  - A declining trend in real rates of return on safe assets in the U.S. over recent decades.
  - The fact that investors are willing to pay premium prices for safe assets like government debt.
  - Low productivity growth.

A declining trend

- The low real return on safe assets does not mean that all real returns in the economy are low.
- Real rates of return on safe assets have been declining relative to the real return on capital (as calculated from GDP accounts) in the U.S. for several decades.
  - This decline cannot be attributed to monetary policy.
- This suggests that there has been an increasing demand for safe assets during this period.
- We call this the "high-liquidity-premium" regime.
  - See D. Andolfatto and S. Williamson, 2015, "Scarcity of Safe Assets, Inflation, and the Policy Trap," *JME*, *73*(1), 70-92; R. Lagos, 2010, "Asset Prices and Liquidity in an Exchange Economy," *JME*, *57*(8), 913-30; and S.D. Williamson, 2016, "Scarce Collateral, the Term Premium, and Quantitative Easing," *JET*, *164*(1), 136-65.
- This seems unlikely to change over the forecast horizon.

Real returns on capital and safe assets

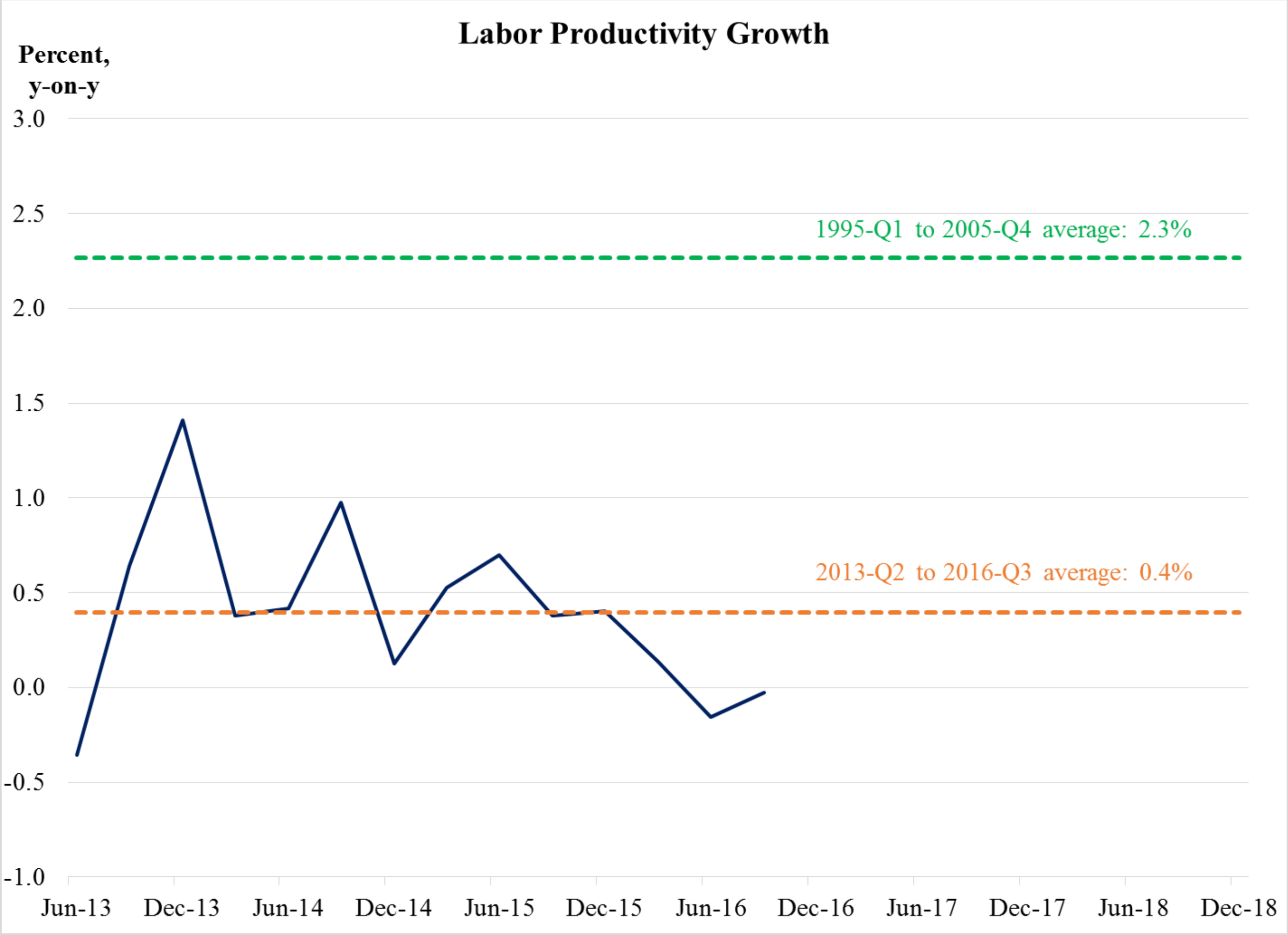


Source: P. Gomme, B. Ravikumar and P. Rupert. "Secular Stagnation and Returns on Capital," FRB of St. Louis Economic Synopses No. 19, 2015; Federal Reserve Board, FRB of Dallas and author's calculations.

The low-productivity-growth regime

- In addition, we are in a low-productivity-growth regime in the U.S.
- The low-productivity-growth regime is feeding into lower rates of real GDP growth and lower rates of consumption growth than would otherwise be the case.
- This is likely putting downward pressure on safe real rates of return.
- This also appears to be unlikely to change over the forecast horizon.

The high- and low-productivity-growth regimes



Source: Bureau of Labor Statistics, Bureau of Economic Analysis and author's calculations.
Last observation: 2016-Q3.

What About the New Policies Brewing in Washington?

The incoming administration and Congress

- The incoming administration and Congress represent an end of "divided government."
- The incoming macroeconomic agenda has many components, which I will summarize in five parts: (1) deregulation, (2) infrastructure spending, (3) tax reform, (4) immigration reform and (5) trade policy.
- Of these, I see the first three as potentially having some impact on the low-real-interest-rate regime over the next several years.
- Any impact from the last two will likely take longer.

The impact of new policies on the real rate

- Can these new policies being developed in Washington move the U.S. out of the low-real-interest-rate regime?
- Here are several considerations:
  - The economy is not in recession today, so these policies should not be viewed as countercyclical measures.
  - Low real interest rates are a global phenomenon, not just a U.S. phenomenon, so it would be difficult for the U.S. to break out alone. Liquidity premia, in particular, seem to be global.
  - U.S. productivity growth is low and could conceivably be improved considerably. This could help to increase the real rate.

The impact of new policies on the real rate

- Bottom line:
  - Whether the new policies being developed in Washington represent a "regime shift" depends on whether these policies will impact productivity.
- Three policy changes may have an impact:
  - Deregulation: To the extent some areas of regulation are excessive, this could improve productivity.
  - Infrastructure: Putting the right public capital in place could improve productivity.
  - Tax reform: Tax changes that encourage investment in the U.S. could improve U.S. productivity.

Longer-term policies

- Other macroeconomic issues were perhaps of more pressing concern during the recent campaign, including trade and immigration.
- Trade negotiations tend to be slow-moving relative to monetary policy.
- Trade arrangements can have important macroeconomic effects, but over the longer term.
- Similarly, immigration reform would likely have important effects on the macroeconomy, but perhaps over a longer horizon.

Conclusion

Conclusion

- The St. Louis Fed's recommended policy rate depends mostly on the safe real rate of return.
- Safe real rates of return are exceptionally low and are not expected to rise soon, a "low-safe-real-rate regime."
- This means, in turn, that the policy rate should be expected to remain exceptionally low over the forecast horizon.
- New policies brewing in Washington may have some impact on the low-safe-real-rate regime if they are directed toward improving medium-term U.S. productivity growth.

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