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CENTRAL to AMERICA'S ECONOMY™

The U.S. Macroeconomic Outlook

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

Introduction

Key themes in this talk

- The U.S. economy has arguably converged to a low-growth, low-safe-real-interest-rate regime, a situation that is unlikely to change dramatically during 2017.
- The Fed can take a wait-and-see posture regarding possible changes to U.S. fiscal and regulatory policies.
- The U.S. policy rate can remain relatively low and still keep inflation and unemployment near targets.
- Now may be a good time for the FOMC to consider allowing the balance sheet to normalize by ending reinvestment.

The Low-Growth Regime

Real GDP growth around 2 percent

- Real GDP growth measured from one year earlier has averaged just 2.1 percent over the last seven years.
- The last two years have shown very little change in year-over-year real GDP growth.
  - 2015-Q4: 1.9 percent, 2016-Q4: 2 percent.
- A natural conclusion is that the economy has converged upon a growth rate of about 2 percent.

Real GDP growth in 2017

- These considerations make it seem unwise to forecast more rapid growth in 2017.
- In addition, some indications for growth in the first quarter of 2017 are below 2 percent.
- If the tracking estimates turn out to be correct, the economy will have to grow that much more rapidly during the last three quarters of 2017 to surpass 2 percent for the year as a whole.

Tracking estimates for 2017-Q1 real GDP growth

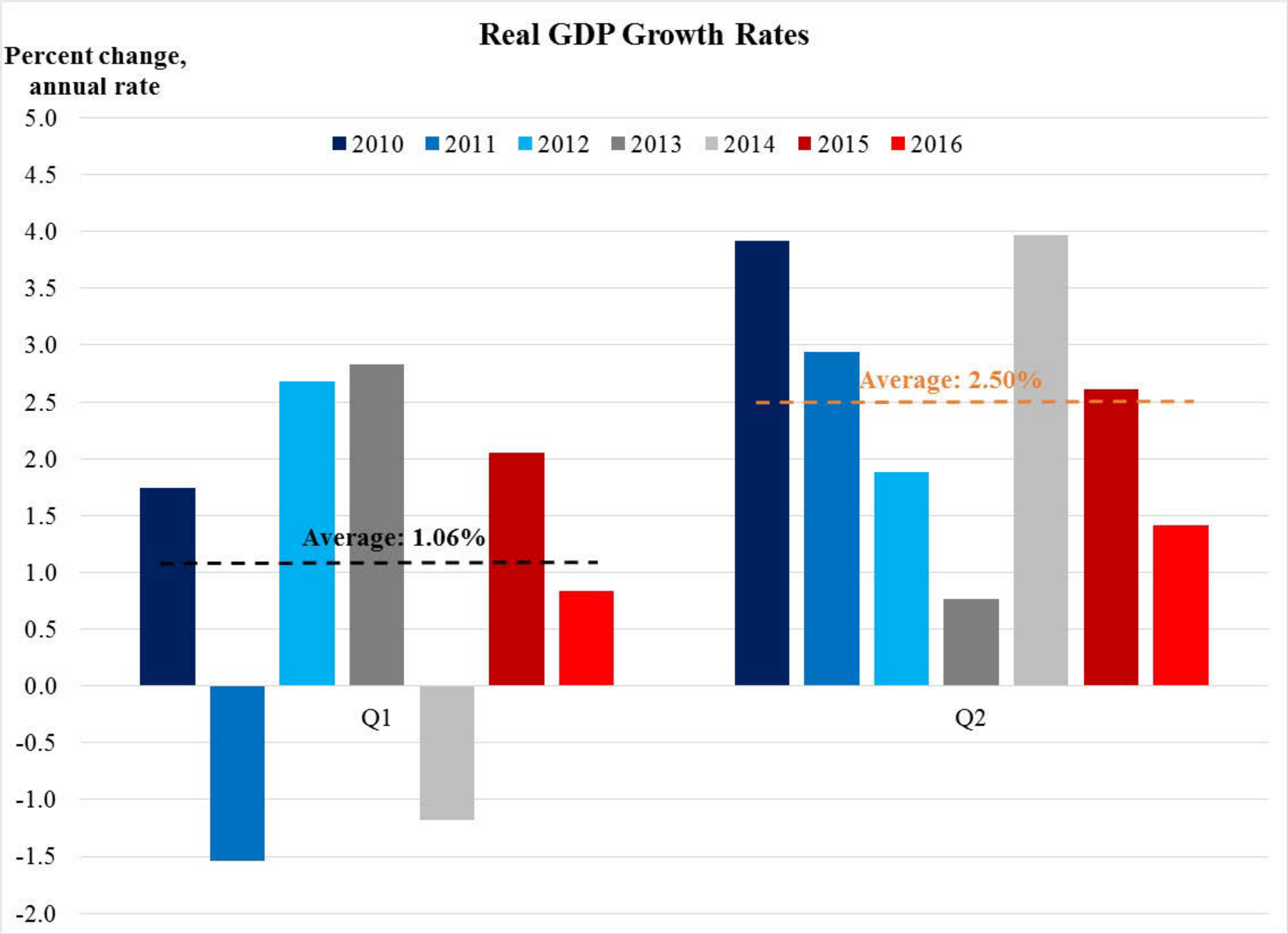
Source	Date	Estimate*
Blue Chip Consensus	March 10	1.9%
FRBNY Staff Nowcast	April 7	2.8%
St. Louis Fed Economic News Index	April 7	2.9%
CNBC Moody's Consensus (median)	April 7	1.4%
Atlanta Fed GDPNow	April 7	0.6%
Macroeconomic Advisers	April 7	0.9%

* percent change from the previous quarter, annualized

Residual seasonality?

- In recent years, first-quarter real GDP growth in the U.S. has generally been lower than in other quarters, despite the de-seasonalization process used to assemble the data.
- The magnitude of this effect is debatable.
- On balance, weather effects in the first quarter of 2017 have not been particularly pronounced.
- It may be better to use real GDP growth measured from one year earlier to gauge performance.

Q1 vs. Q2 real GDP growth



Source: Bureau of Economic Analysis and author's calculations. Last observation: 2016-Q4.

Labor Market Improvement Slowing

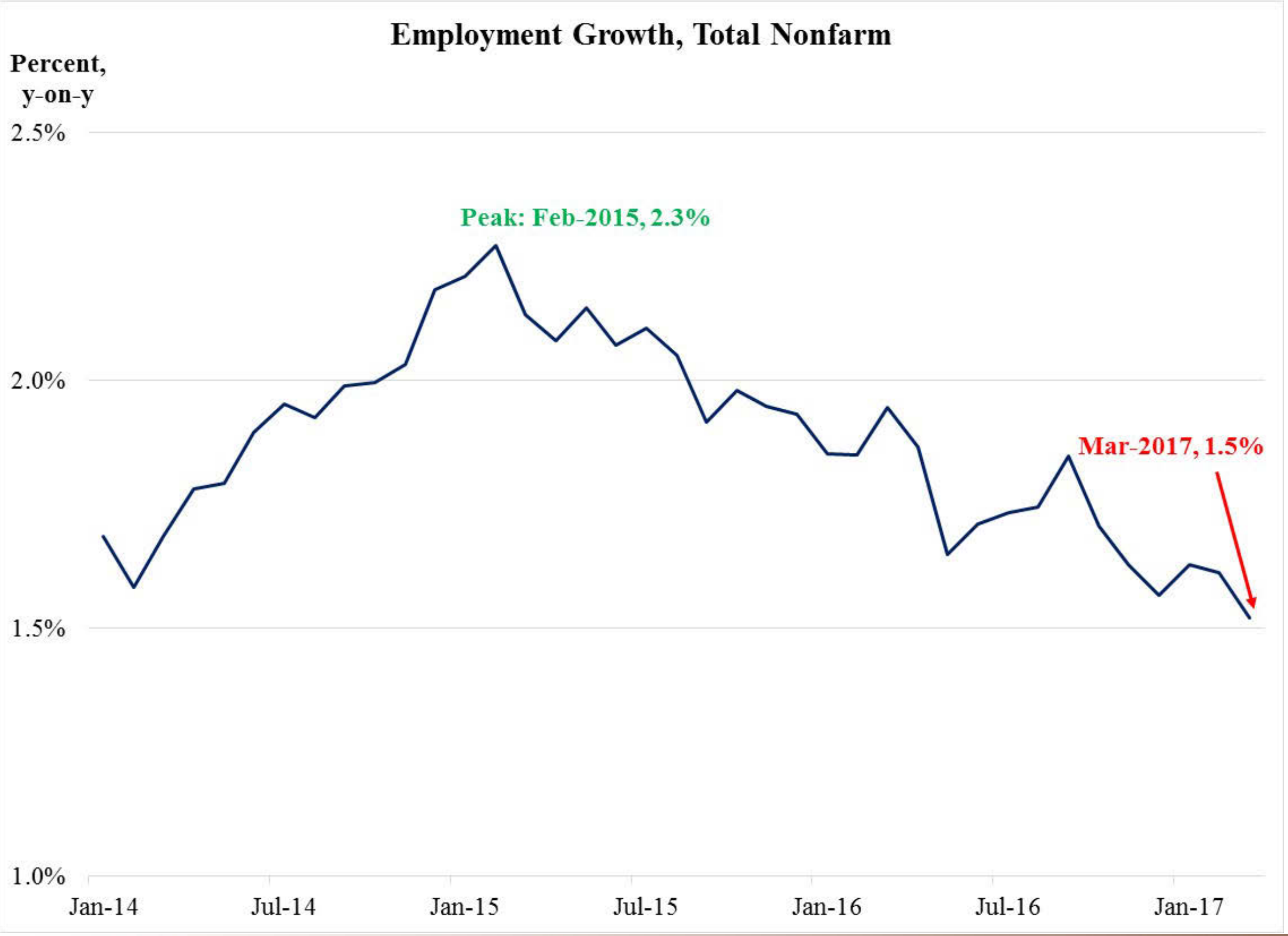
Labor market improvement is slowing down

- Labor market improvement has slowed over the last 18 months.
- The unemployment rate has declined only a few tenths of a percent over the last 18 months.
- Nonfarm payroll employment growth measured from one year earlier was 2.3 percent in February 2015 and has slowed to 1.5 percent today.
- Private hours growth measured from one year earlier was 3.4 percent in February 2015 and has slowed to just 1.4 percent today.
- Bottom line: Labor market improvement has been slowing.

The decline in the unemployment rate has slowed

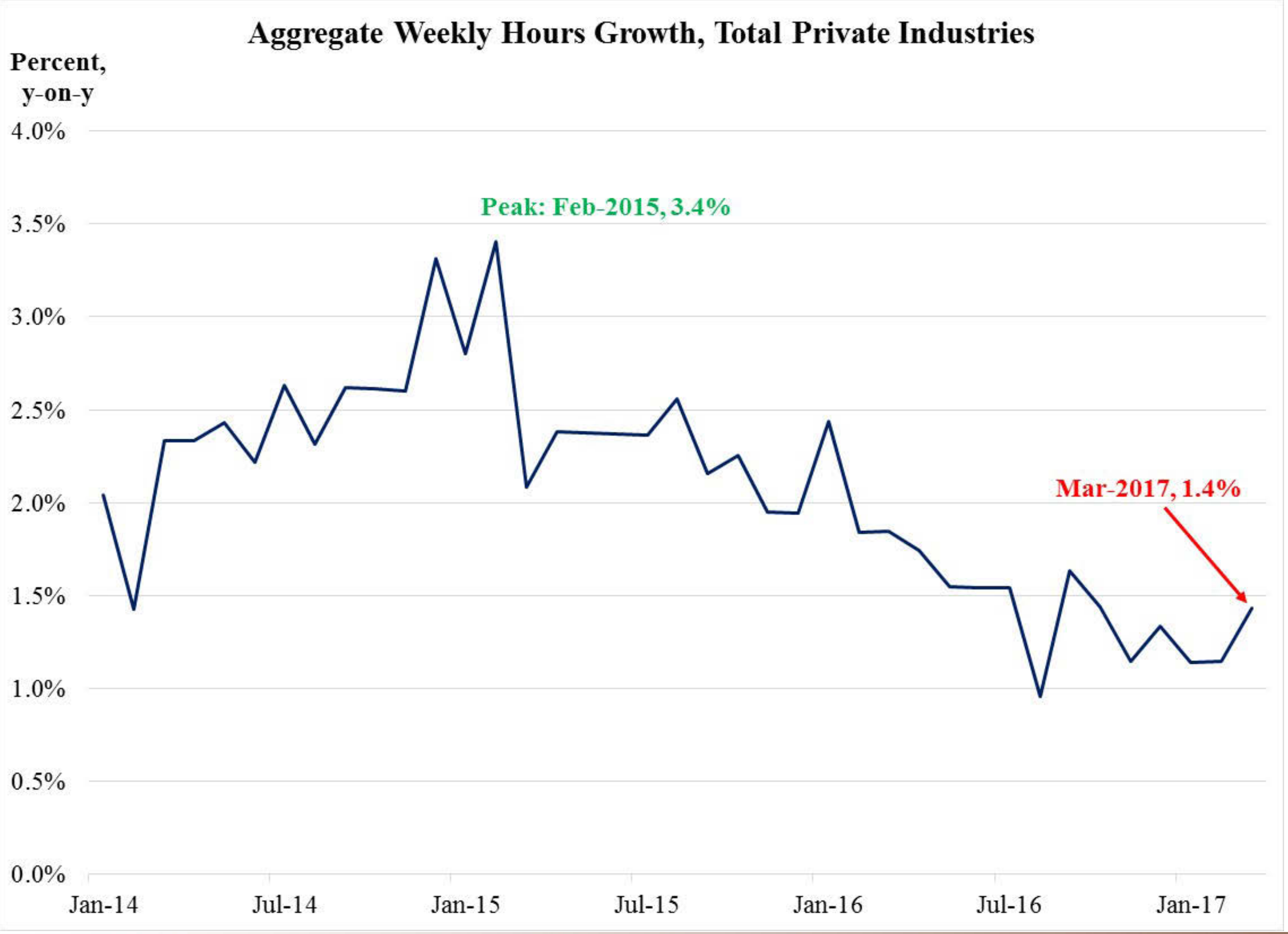
Source: Bureau of Labor Statistics and author's calculations. Last observation: March 2017.

Employment growth has slowed



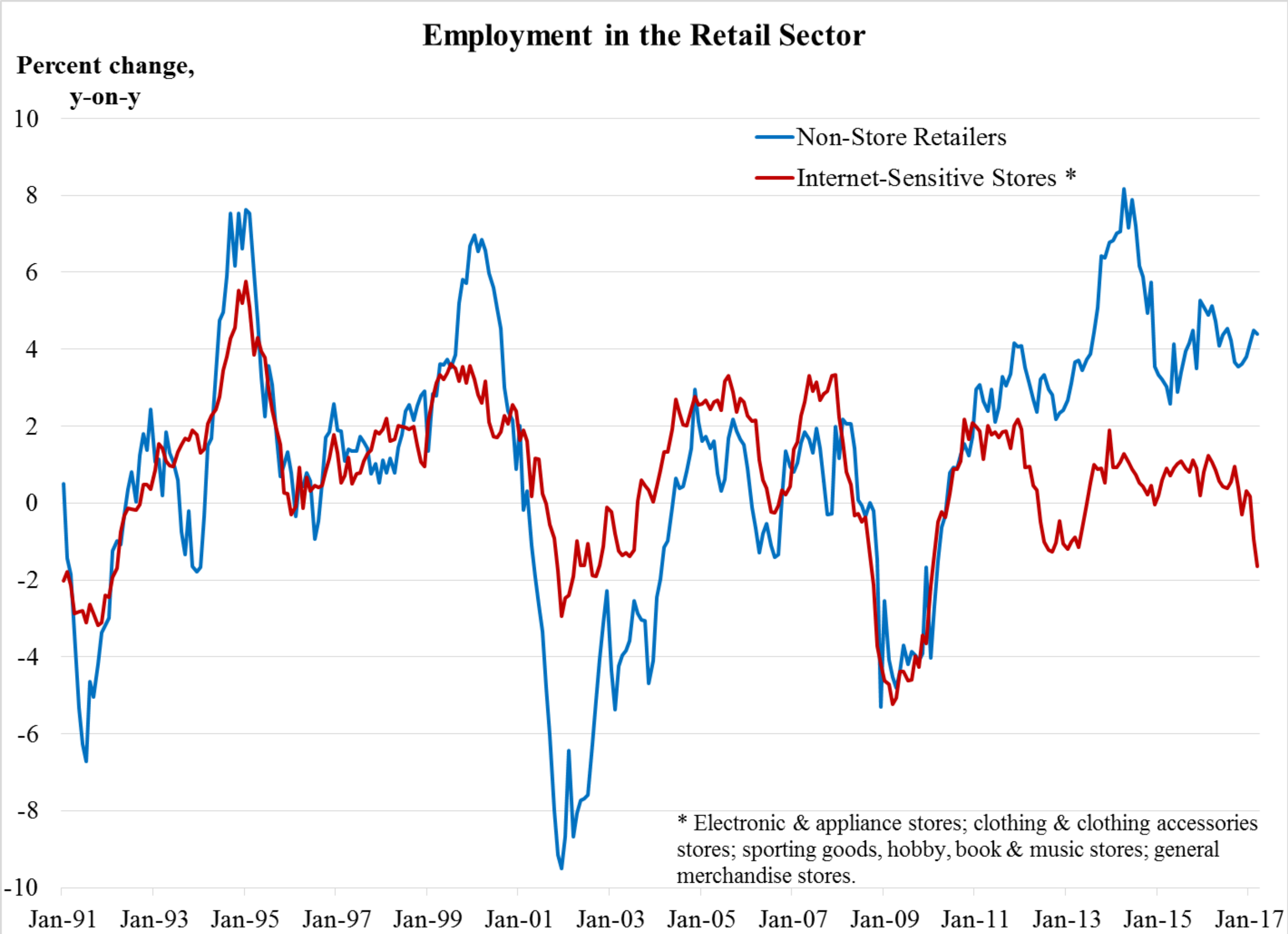
Source: Bureau of Labor Statistics and author's calculations. Last observation: March 2017.

Hours growth has slowed



Source: Bureau of Labor Statistics and author's calculations. Last observation: March 2017.

Divergent trends in retail sector employment growth



Source: Bureau of Labor Statistics and author's calculations. Last observation: March 2017.

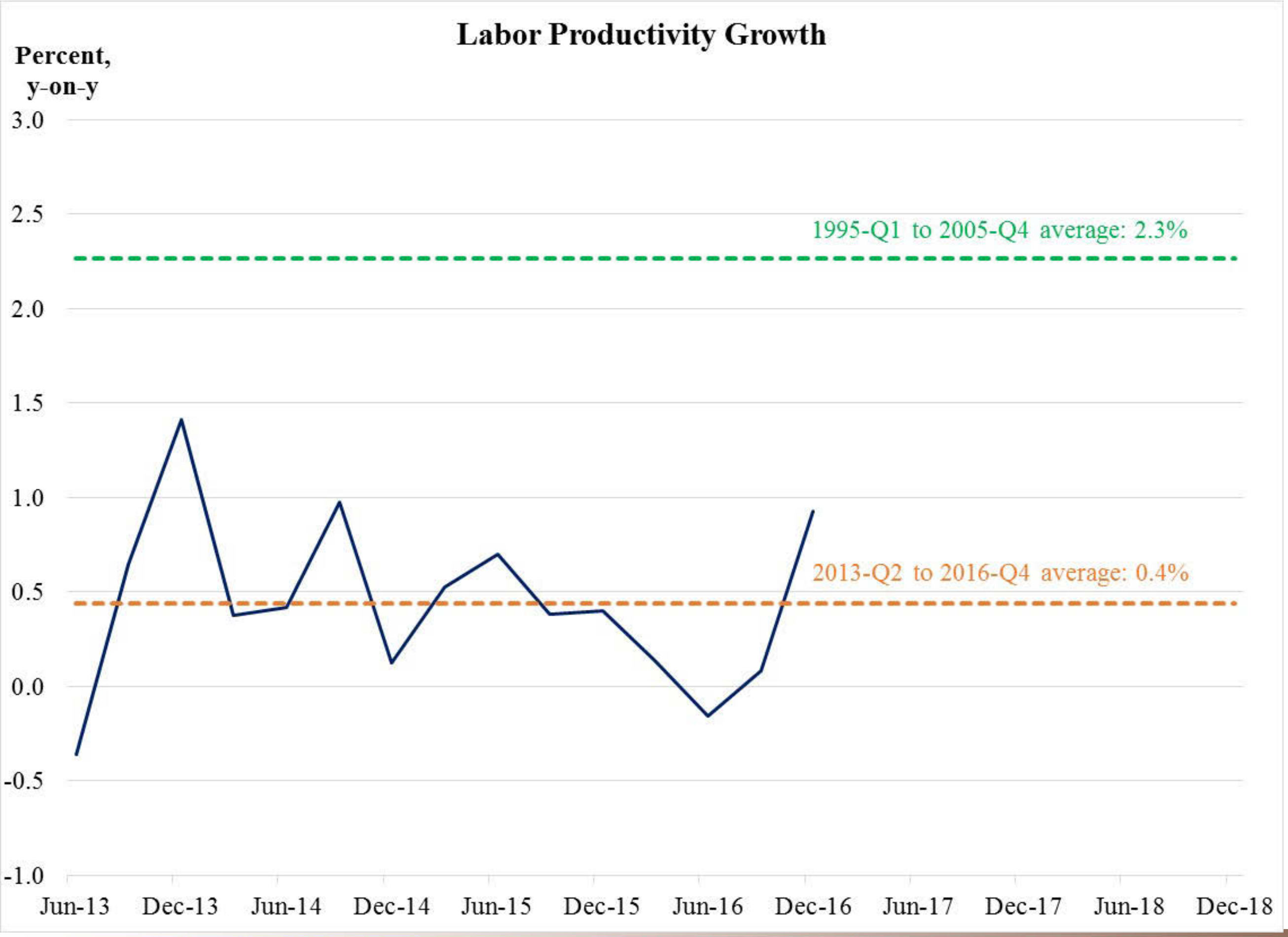
The Low-Productivity-Growth Regime

U.S. labor productivity growth has been low

- U.S. growth over the medium and longer term is thought to be driven by labor force trends and productivity trends.
- U.S. labor productivity has been growing at an average rate of 0.4 percent since early 2013, whereas it grew at a rate of 2.3 percent per year from 1995 to 2005.
- A statistical model that estimates the probability that the U.S. economy is in a low-productivity-growth regime puts nearly all the probability on the low-growth regime.*
- Bottom line: Faster productivity growth is the surest path to more rapid real GDP growth in the U.S.

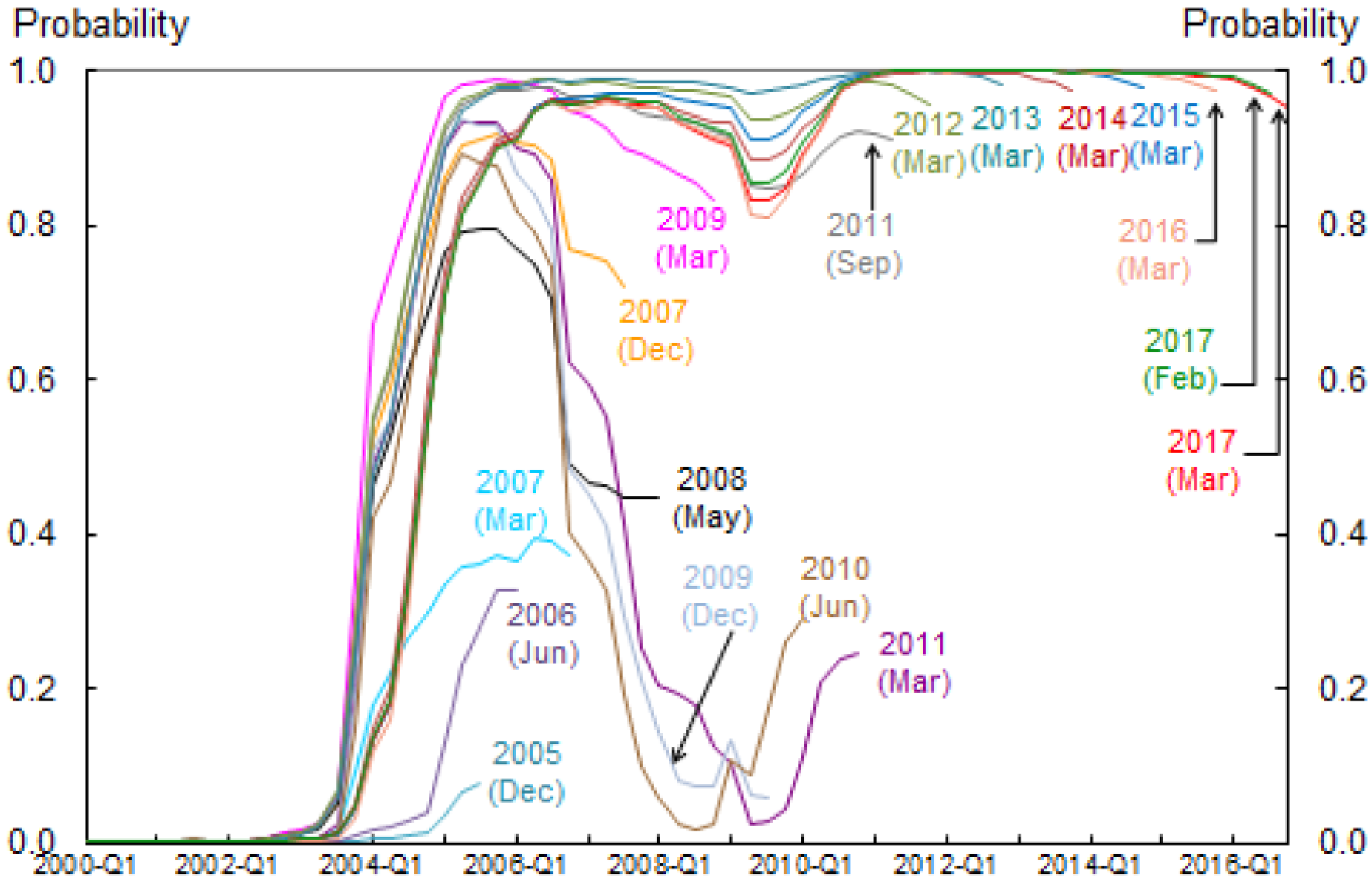
** See J.A. Kahn and R.W. Rich, 2006, "Tracking Productivity in Real Time," Federal Reserve Bank of New York,* Current Issues in Economics and Finance, *12*(8).

The high- and low-productivity-growth regimes



Source: Bureau of Labor Statistics, Bureau of Economic Analysis and author's calculations.
Last observation: 2016-Q4.

Low-productivity-growth regime probability



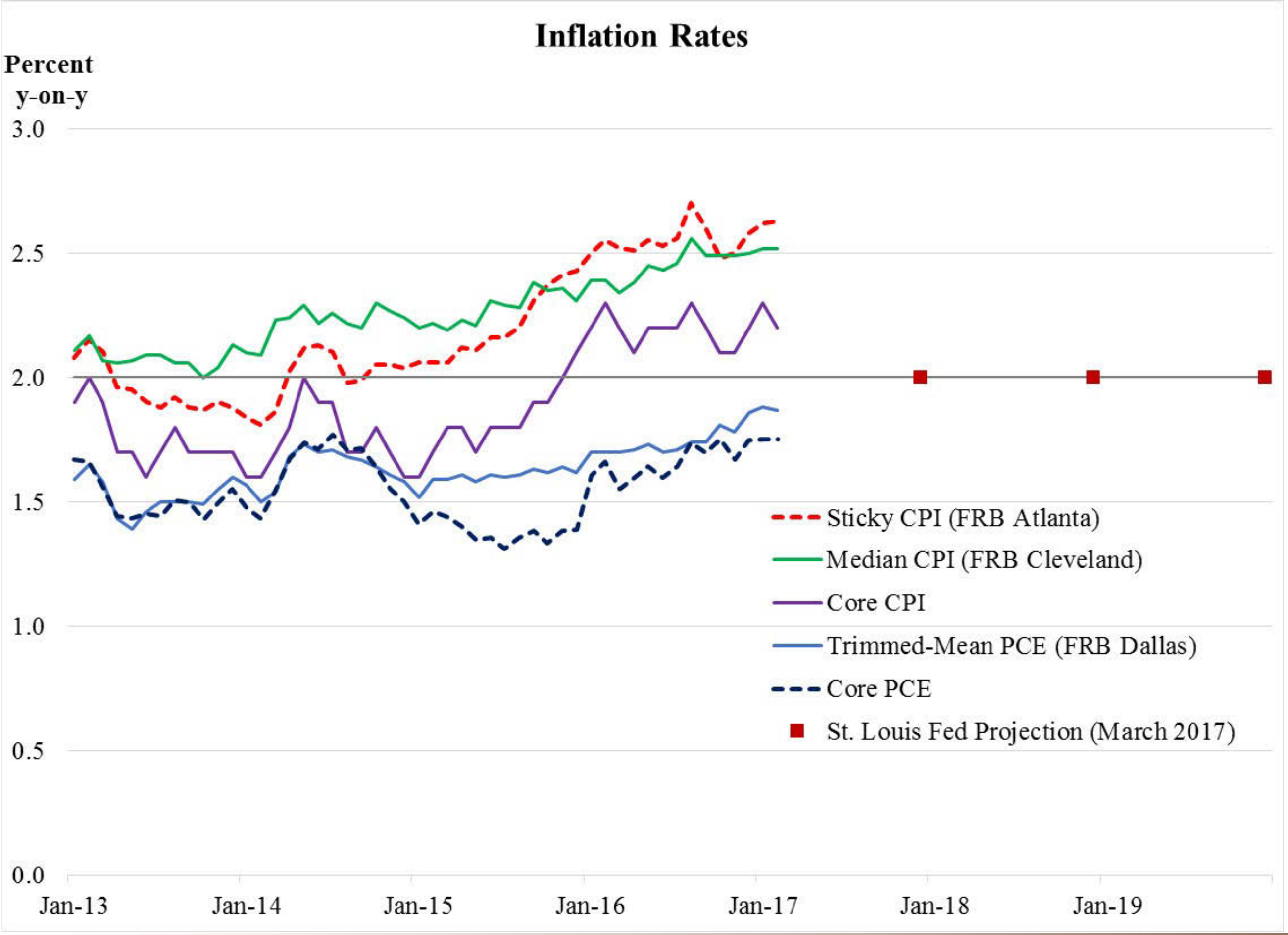
Source: Federal Reserve Bank of New York. Last observation: March 2017.

Inflation Close to 2 Percent

The impact on inflation: Barely perceptible

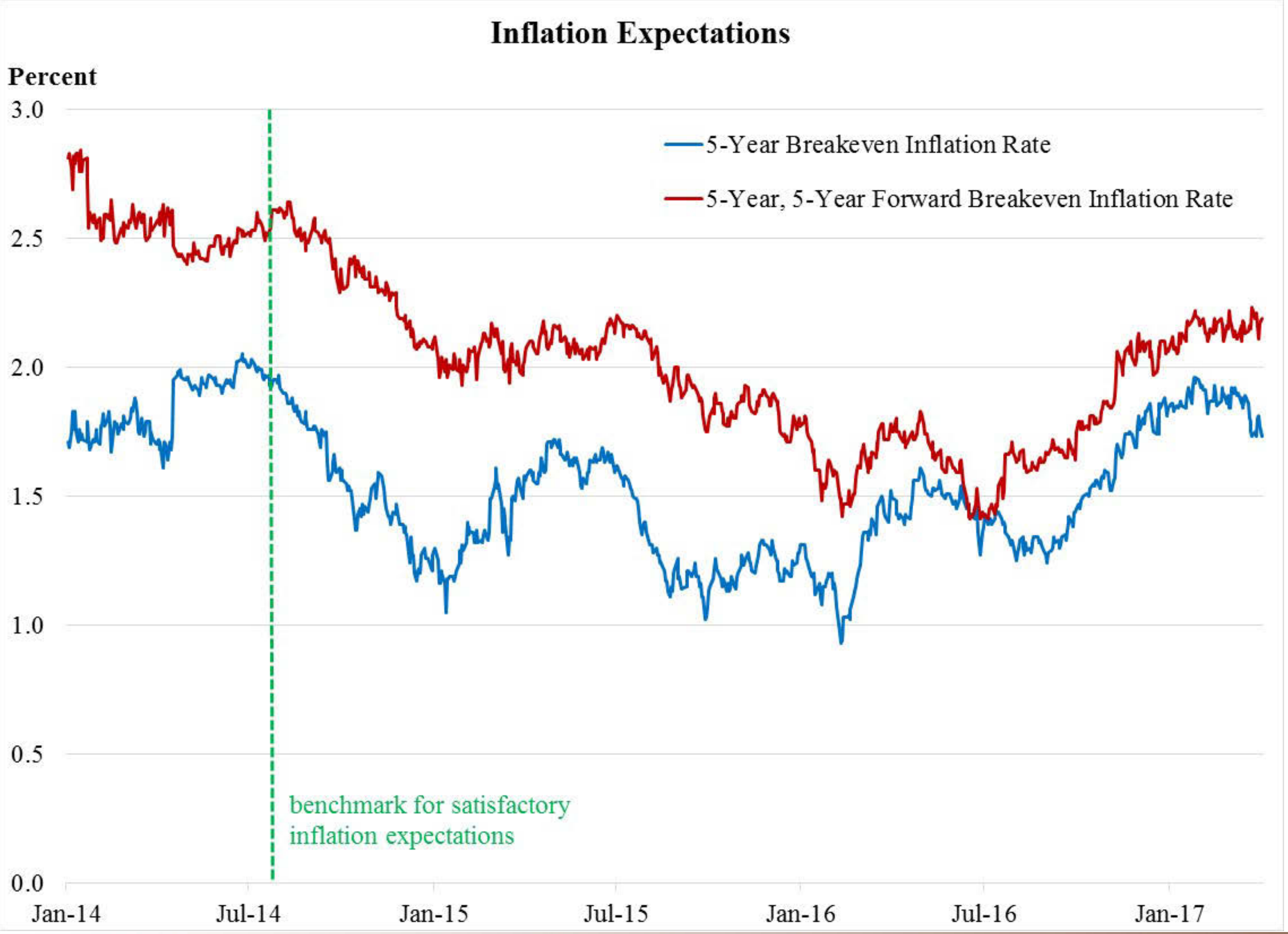
- U.S. inflation as measured by the Dallas Fed trimmed-mean inflation rate measured from one year earlier has barely increased in the last several years (1.9 percent in February).
  - This measure controls for some of the effects of energy prices.
- Headline inflation measured from one year earlier has also returned to the 2 percent target (2.1 percent in February).
- Most other measures of inflation are also near 2 percent.
- Inflation expectations have been rising but are still somewhat low.
- Bottom line: Inflation has essentially returned to 2 percent and is expected to remain there.

Inflation essentially at 2 percent



Source: Bureau of Labor Statistics, FRB Cleveland, FRB Atlanta, Bureau of Economic Analysis, FRB Dallas and author's calculations. Last observations: February 2017.

Inflation expectations remain somewhat low



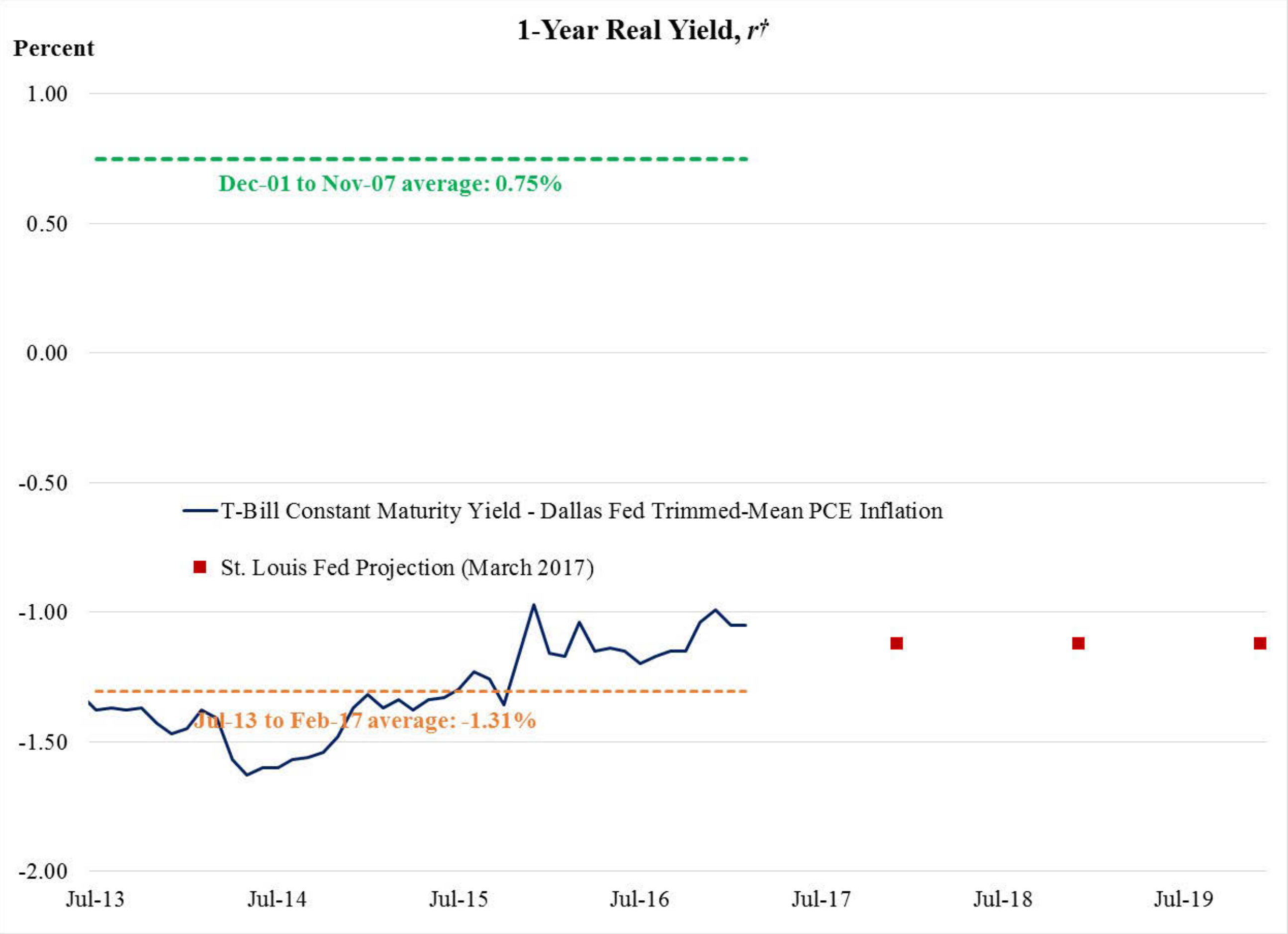
Source: Federal Reserve Board. Last observation: April 3, 2017.

The Low-Safe-Real-Rate Regime

The low-safe-real-rate regime: Unlikely to change soon

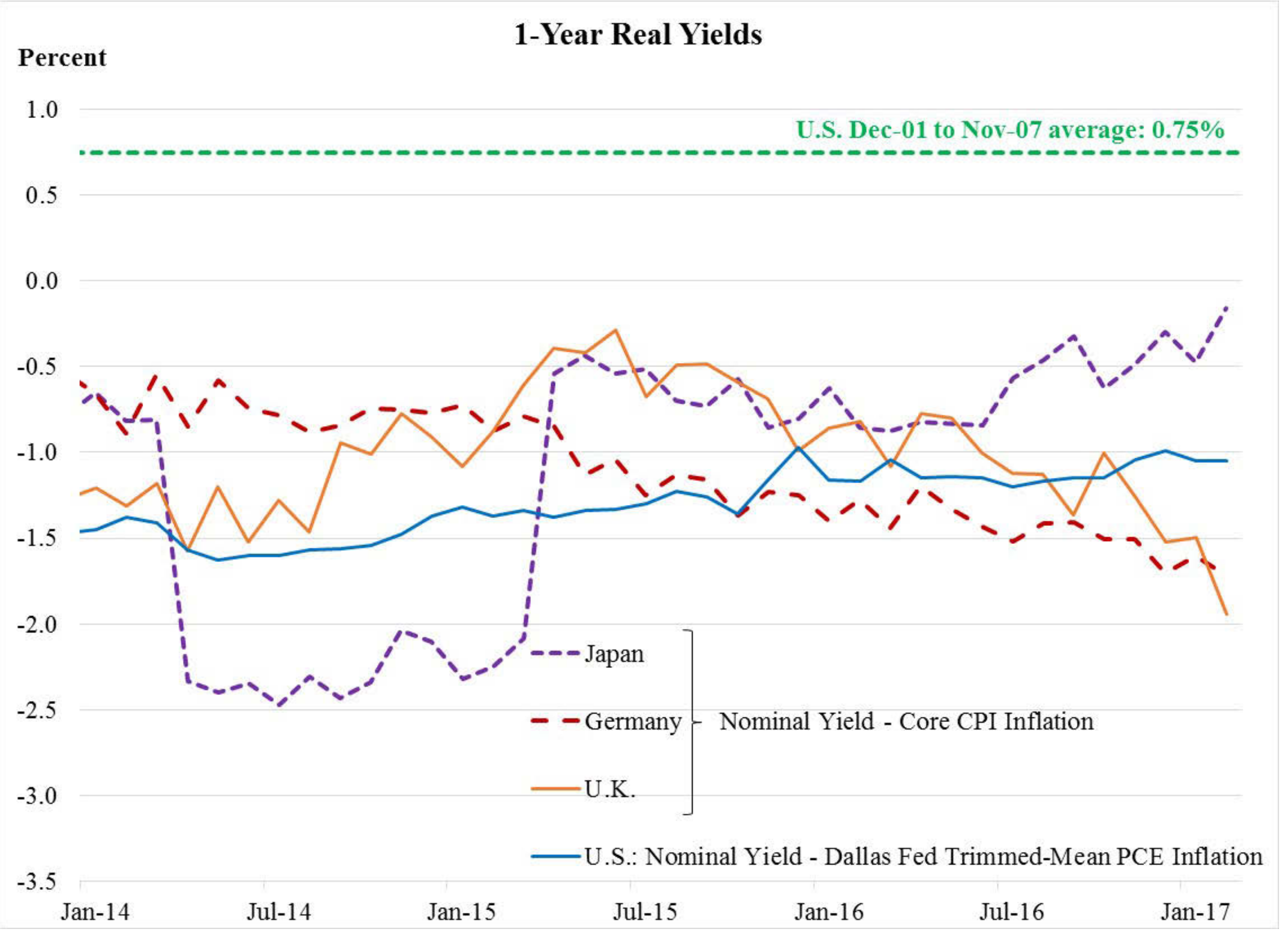
- The low-safe-real-rate regime is a global phenomenon.
- The low-safe-real-rate regime has been many years in the making.
- These considerations suggest that the regime will not go away quickly, and so it may be unwise to forecast that the safe rate will rise.
- The Fed's policy rate setting uses the safe rate as a benchmark.
- I conclude that a relatively low policy rate is likely to remain appropriate going forward.

The low- and high-real-rate regimes in the U.S.



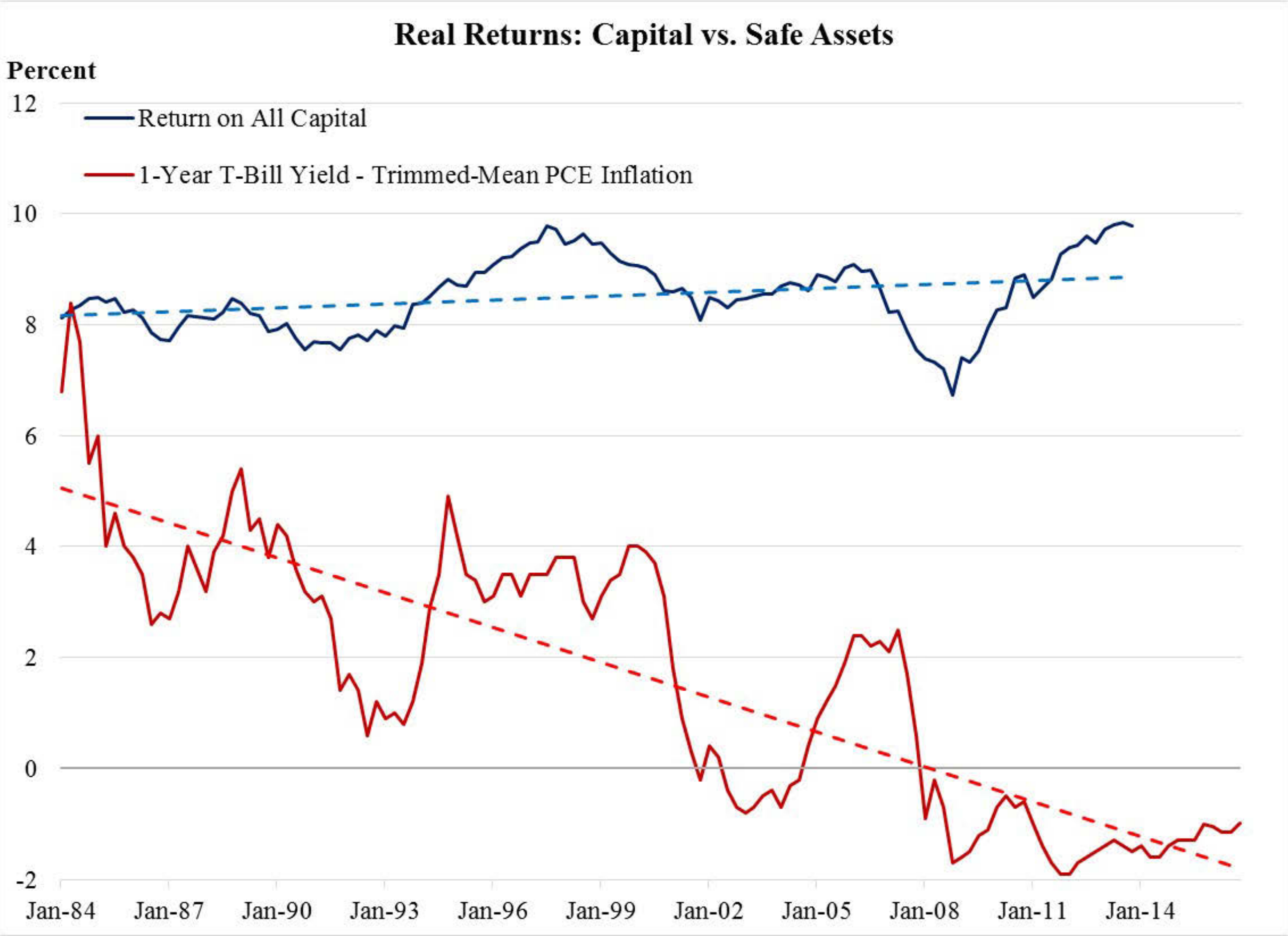
Source: Federal Reserve Board, FRB of Dallas and author's calculations. Last observation: February 2017.

One-year ex-post real yields are low globally



Source: Haver Analytics, Thomson Reuters Datastream and author's calculations. Last observation: February 2017.

Low safe real rates have been developing over decades



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.

Bottom line on the low-safe-rate regime

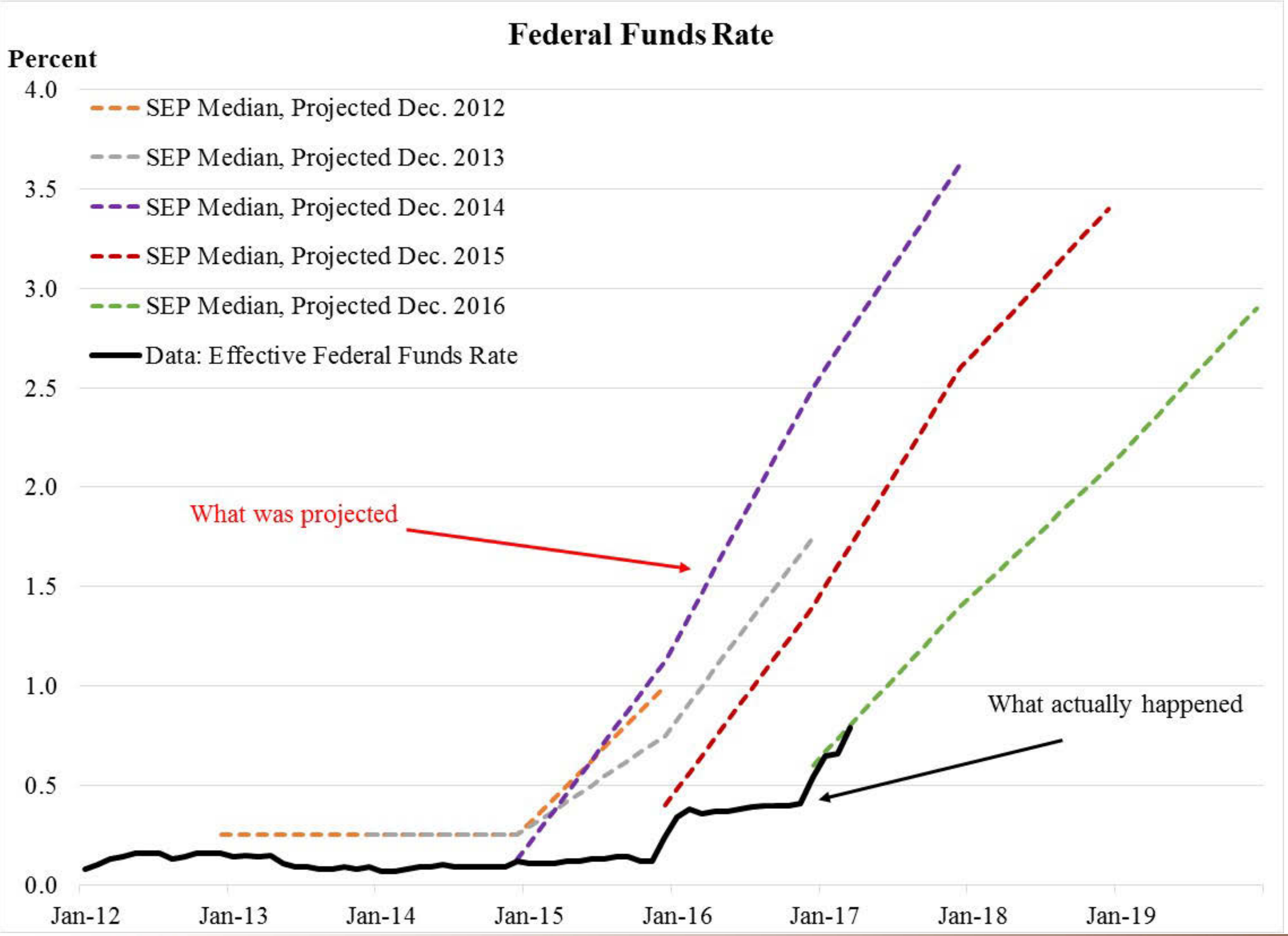
- Real rates of return on government paper are exceptionally low in the current global macroeconomic environment.
- It seems unwise to rely on mean reversion to predict that the forces driving safe real rates to such low levels are likely to reverse anytime soon.
- This then feeds through to the policy rate, which is also likely to remain low.

Current U.S. Monetary Policy

Policy rate projections: Differences in views

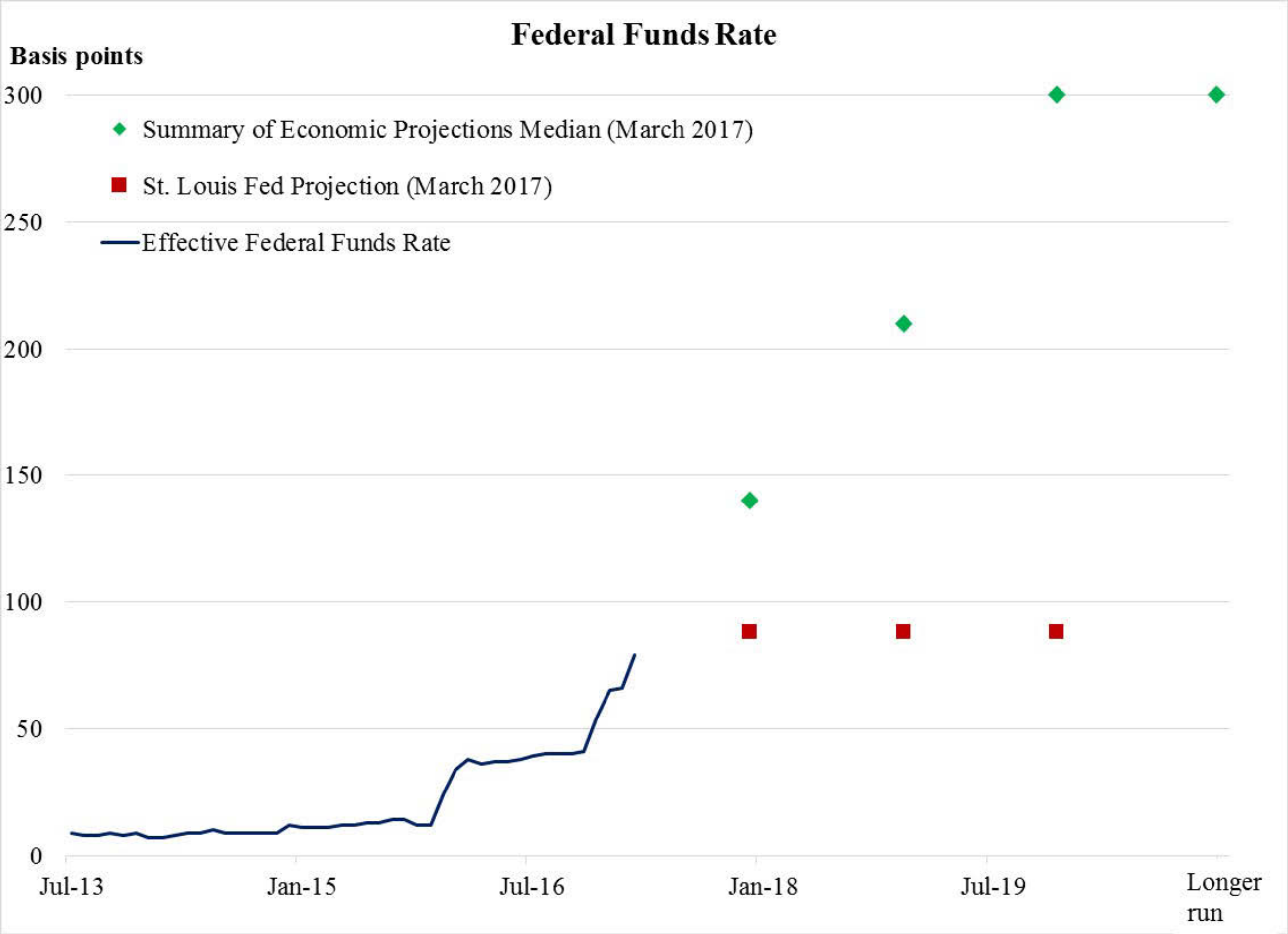
- What is the difference between the St. Louis Fed's view and the view underlying the median dots in the FOMC's Summary of Economic Projections (SEP)?
- Answer: We do not assume mean reversion in the rate of productivity growth or in the real rate of return on short-term government paper.
- The median dots suggest that the real rate of return, in particular, will return to its 2001-2007 U.S. average, while the St. Louis Fed does not predict this.
- This leads to a St. Louis Fed forecast of a relatively flat policy rate over the next two to three years, with some upside risk.

The FOMC policy rate projections vs. reality



Source: Federal Reserve Board and author's calculations. Last observation: March 2017.

The policy rate path dichotomy



Source: Federal Reserve Board and author's calculations. Last observation: March 2017.

Impact of New Fiscal and Regulatory Policies

Impact of the new fiscal and regulatory policies

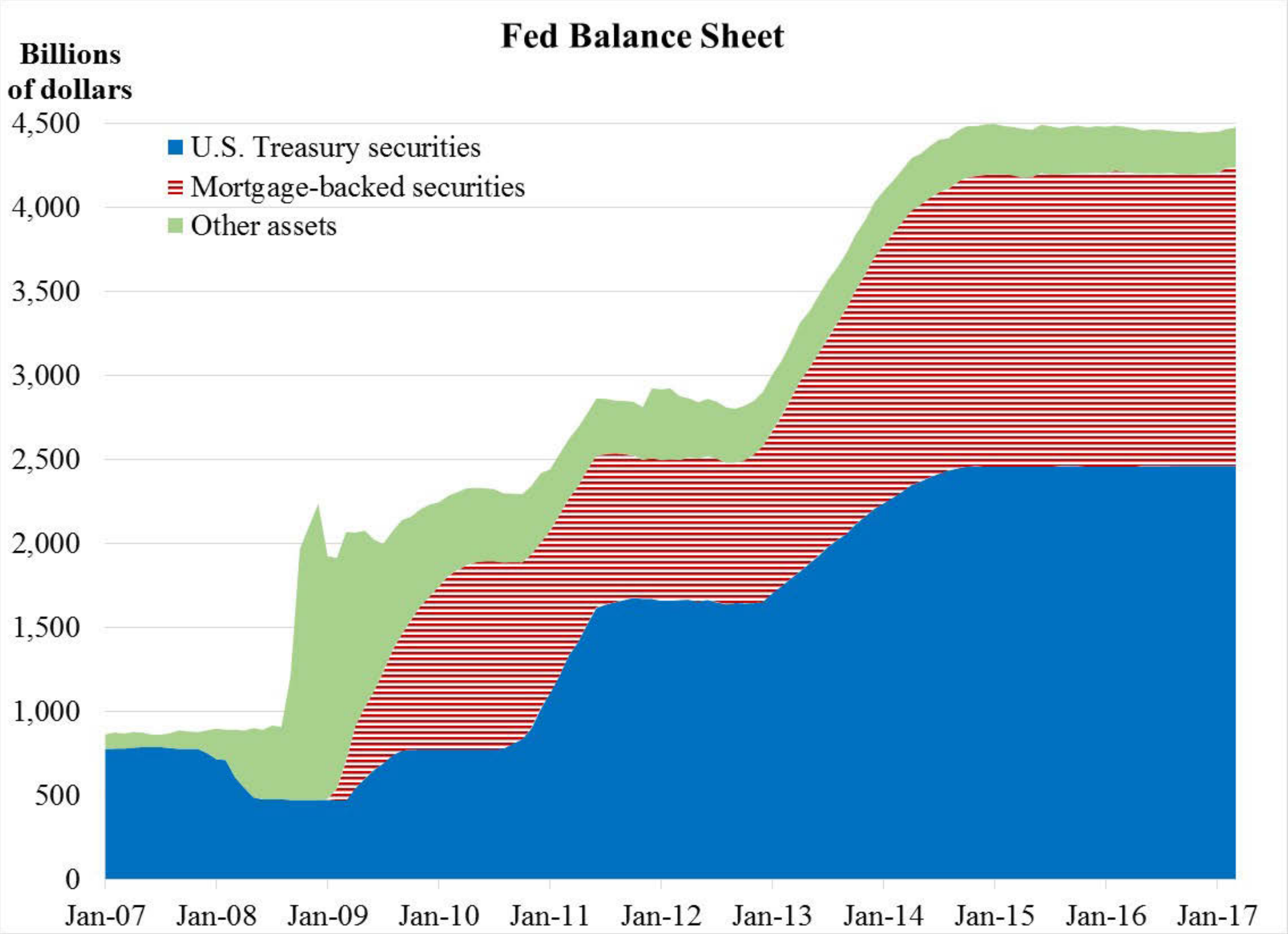
- Will the new fiscal and regulatory policies move the U.S. into a higher growth regime? The Fed can wait and see.
- Here are two considerations:
  - The economy is not in recession today, so fiscal policies should not be viewed as countercyclical measures.
  - U.S. productivity growth is low and could be improved considerably.
    - Deregulation could improve productivity growth.
    - Infrastructure spending could improve productivity growth.
    - Tax reform could improve productivity growth.

The Fed's Balance Sheet Policy

The Fed could begin to normalize its balance sheet

- The Fed's balance sheet has been an important monetary policy tool during the period of near-zero policy rates.
- The FOMC has not set a timetable for ending the current reinvestment policy.
- Now that the policy rate has been increased, the FOMC may be in a better position to allow reinvestment to end or to otherwise reduce the size of the balance sheet.
- Adjustments to balance sheet policy might be viewed as a way to normalize Fed policy without relying exclusively on a higher policy rate path.

The Fed's balance sheet assets



Source: Federal Reserve Board. Last observation: March 2017.

Current policy is distorting the yield curve

- The current FOMC policy is putting some upward pressure on the short end of the yield curve through actual and projected movements in the policy rate.
- At the same time, current policy is putting downward pressure on other portions of the yield curve by maintaining a $4.47 trillion balance sheet.
- This type of "twist operation" does not appear to have a theoretical basis.
- A more natural normalization process would allow the entire yield curve to adjust appropriately as normalization proceeds.

Creating balance-sheet "policy space"

- Some have argued that the size of the balance sheet should not be reduced until the policy rate is high enough that it can be reduced appropriately should a recession develop.
- This is sometimes called "policy space."
- The same "policy space" argument can be made for the size of the balance sheet.
- We should be allowing the balance sheet to normalize naturally now, during relatively good times, in case we are forced to resort to balance sheet policy in a future downturn.

Conclusion

Conclusion

- The U.S. economy has arguably converged to a low-real-GDP-growth, low-safe-real-interest-rate regime.
- Because of this, the Fed's policy rate can remain relatively low while still keeping inflation and unemployment near goal values.
- The new fiscal and regulatory policies could impact productivity growth and therefore improve the pace of real GDP growth.
  - The Fed can wait to see how these new policies evolve.
- Ending balance sheet reinvestment may allow for a more natural adjustment of rates across the yield curve as normalization proceeds.

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