

ECONOMIC ADVISORY PANEL MEETING

**Federal Reserve Bank of New York
33 Liberty Street, New York, New York**

Friday, October 21st, 2016

AGENDA

10:00 a.m. Coffee, Benjamin Strong Room, 10th floor

10:30 a.m. Economic Outlook Discussion

- Causes and Consequences of Low Interest Rates in the Global Economy
 - The discussion will be introduced by
 - Kenneth Rogoff on the global factors behind low interest rates
 - Alan Blinder on the implications of low interest rates for monetary policy

- Roundtable on the US and global economic outlook

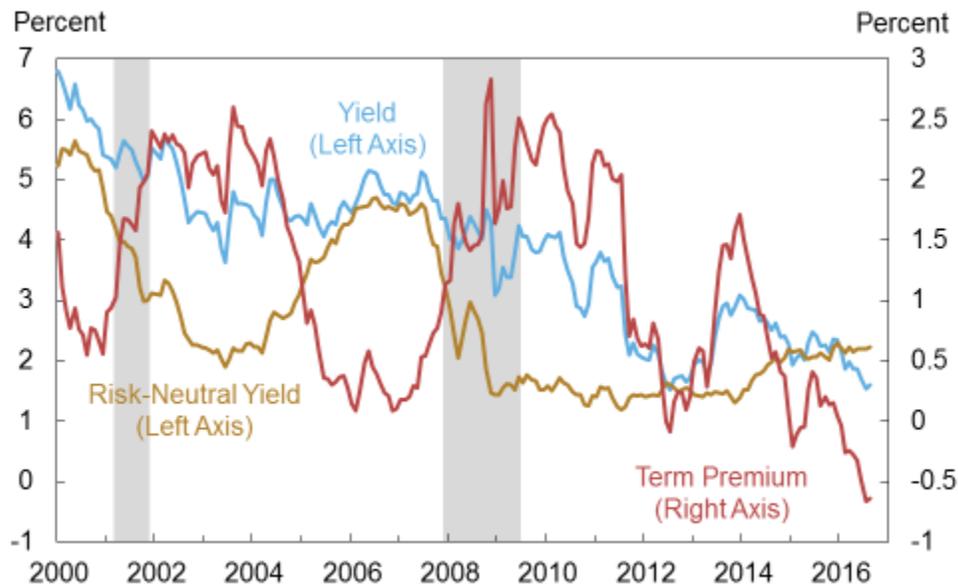
12:30 p.m. Luncheon, Northwest Conference Room, 10th floor

Causes and Consequences of Low Interest Rates in the Global Economy

Background and Questions for Discussion

Interest rates are near their historical lows in virtually all advanced economies. In fact, longer term sovereign bond yields are negative in many countries, including Germany and Japan. The decline in longer term yields since the end of the Great Recession has been remarkable: as shown in the figure below, the nominal 10-year Treasury yield has fallen from about 4% at the end of 2009 to 1.5% today. In comparison, the 10-year yield was roughly stable around 5% over the course of the previous expansion.

10 Year Treasury Bonds: ACM Decomposition



Source: Federal Reserve Bank of New York calculations

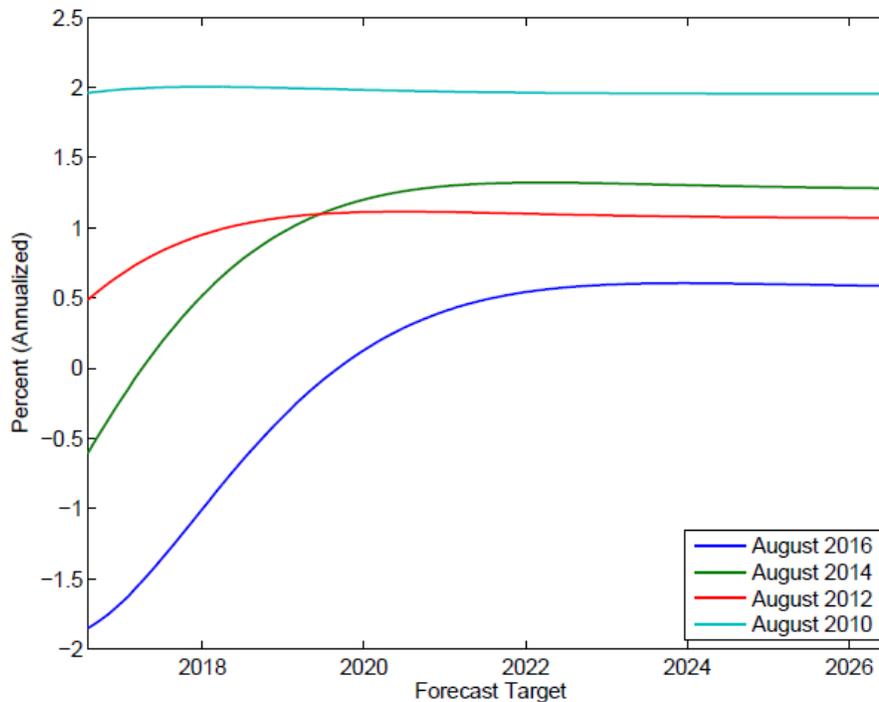
Note: Shading shows NBER recessions.

According to the decomposition based on Adrian, Crump, and Moench (2013) presented in the figure, this pronounced decline in rates is more than accounted for by a drop in the term premium, which is currently estimated to be negative.¹ This reduction has been even larger than the estimated fall between 2004 and 2006, when the resulting stability in longer-term yields in the face of monetary policy tightening gave rise to Alan Greenspan's famous "conundrum".

¹ Adrian, Crump, and Moench (2013), "Pricing the Term Structure with Linear Regressions", *Journal of Financial Economics*, 110(1): 110-138.

Based on TIPS, declines in real yields and breakeven inflation both contributed significantly to the fall in the 10-year nominal yield since end-2009, with the decrease in real yields being somewhat larger. Recent analysis using available U.S. surveys of professional forecasters suggests that this decline in real rates is expected to persist far into the future: as shown in the figure below, longer-horizon (mid-2020s) projections by professional forecasters of the real interest rate have fallen from 2% in August 2010 to only 0.5% in August 2016.²

Term Structure of Expected Real Interest Rates



Source: Crump, Eusepi, and Moench (2016)

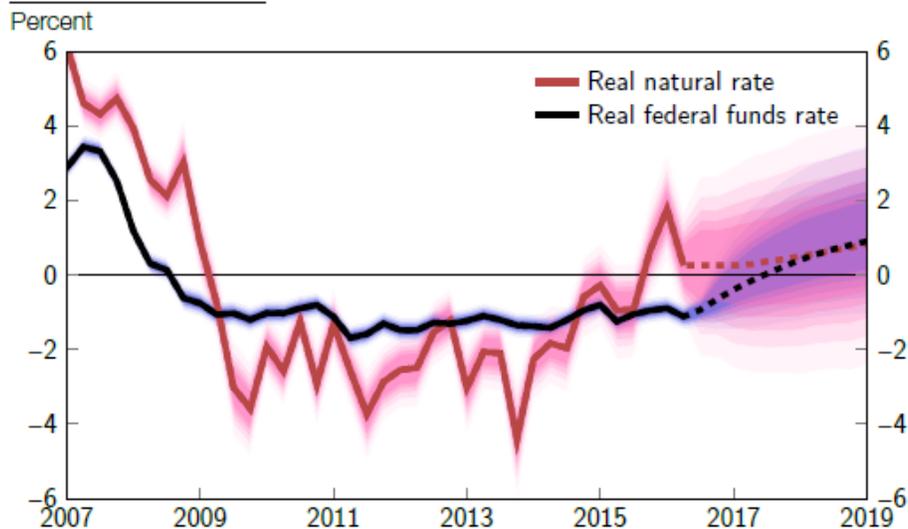
The FOMC participants' assessment of the appropriate federal funds rate in the longer run has followed a similar evolution. In September 2012, the median submission for the longer-run target federal funds rate in the Survey of Economic Projections (SEP) stood at 4%, or 2% in real terms given the 2% inflation goal.³ In the September 2016 SEP, the median longer-run "dot" was between 2.75% and 3%, with only two submissions above 3%.

² See Crump, Eusepi, and Moench (2016), "The Term Structure of Expectations and Bond Yields," Federal Reserve Bank of New York Staff Report No. 775, May.

³ Projections of the target federal funds rate—the so-called "dot plot"—were introduced in the SEP in January 2012.

Recent estimates of the natural real interest rate based on the Laubach and Williams (2003) model, as well as on the FRBNY-DSGE model, are even lower than the latest SEP assessment of the longer run (real) federal funds rate.⁴ As shown in the figure below, however, the natural rate in the FRBNY-DSGE model is projected to rise gradually over the next few years, approaching 1% in 2019. With the real federal funds rate currently negative, and forecasted to converge from below to the real natural rate, the model assesses the current stance of monetary policy as being mildly accommodative. This assessment stands in stark contrast with that of the period between 2009 and 2014, when according to the model the real natural rate was deeply negative and the effective lower bound constraint resulted in a restrictive setting of the policy rate.

Real Interest Rates



Source: Authors' calculations.

Note: Bands represent the 50, 60, 70, 80, and 90 percent confidence intervals for the real natural rate and the federal funds rate.

Questions for Discussion

- What are the major factors behind the global decline in real interest rates?
- What is the role of the policy actions of major central banks since 2008, particularly regarding their balance sheets, in depressing term premia?
- Do low term premia pose special risks to the macroeconomy, for instance by pushing some investors to “reach for yield,” or do they mostly reflect a change in the underlying environment when economies operate close to the effective lower bound?
- What are the challenges posed to U.S. monetary policy by the global low interest rate environment and the possibility of policy divergence across the advanced economies?
- If low natural rates are a long-term feature of the economic environment, are the current central bank toolkits sufficient to achieve their goals?

⁴ Laubach and Williams (2003), “Measuring the Natural Rate of Interest,” *Review of Economics and Statistics*, 85(4): 1063 – 1070.