FOMC Forward Guidance and Investor Beliefs

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Abstract

How does FOMC forward guidance affect the mean and volatility of investors’ conditional expectations of U.S. Treasury yields? This paper takes an ex-ante perspective, and analyzes the effects of the FOMC announcements on the conditional moments of expected Treasury yields in three ways. First, it derives the option-implied state price densities using daily data on two- and ten-year U.S. Treasuries for 2012, and finds the change in the implied moments in response to the FOMC announcements. The following patterns emerge: (a) only the conditional means of the ten-year yields fall on announcement days; (b) the announcements induce a small increase in the implied conditional volatility of the two-year yield and a decrease in the ten-year volatility; (c) the skewness of the densities increases when new information (about the longer accommodative stance of monetary policy) is included in the statements. The implied measure of conditional volatilities is proposed as a new measure of investor uncertainty about monetary policy: it is time-varying, and its response to the FOMC communications depends on the maturity of yields being considered. In the second part, the paper analyzes the impact of changes in the uncertainty about monetary policy on the economy by constructing a DSGE model; increase in the uncertainty about monetary policy following a "forward guidance shock" depresses output, inflation and the short- and long-term asset yields. Finally, the empirical analysis is used to calibrate the size of the monetary policy uncertainty shock; in response to a two standard deviation increase in monetary policy uncertainty, consumption falls by approximately 1/2 basis points.

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