Estimating Monetary Policy Rules When Interest Rates Are Stuck at Zero*

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Abstract

This paper proposes a novel way to measure the response function when the dependent variable is censored. We discuss this proposal in the context of the federal funds rate, which is the target variable for U.S. monetary policy and—starting in December 2008—is targeted within the range between zero and 25 basis points: censored at its effective zero bound. Our novel solution is to use data on forecasts on economic variables by financial market participants in estimating the response function for the federal funds rate. The advantage of using these forecasts is that the forecasters may still continue to project future conditions under which the dependent variable remains positive (i.e. uncensored), allowing for standard methods (e.g. ordinary least squares) to identify the response parameters. Using surveys of market professionals' forecasts we ask: Does the market believe that the Federal Reserve's policy response function changed in the wake of the 2007–2009 financial crisis? According to our analysis, the perceived response to unemployment has increased while the response to inflation has remained stable.

Keywords: monetary policy, policy rule, survey data, market perceptions, censoring, zero lower bound, Blue Chip Survey.
JEL codes:E53, E58.

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