Modeling Monetary Policy in Real Time: Does Discreteness Matter?

This paper applies an empirical framework, combining the use of ordered probit approach, novel real-time data set and decision-making meetings of monetary authority as a unit of observation, to estimate highly systematic reaction patterns between policy rate decisions of the National Bank of Poland and incoming economic data for the period 1999 - 2007. The paper measures the empirical significance of rate discreteness and demonstrates that both the discrete-choice approach and real-time "policy-meeting" data do matter in the econometric identification of Polish monetary policy.

The study detects structural breaks in policy, which switched its focus from current to expected inflation and from exchange rate to real activity. The response to inflationary expectation is shown to be highly asymmetrical depending on whether the expectation is above or below the inflation target. The policy rate appears to be driven by key economic indicators without evidence for intentional interest-rate smoothing by central bank. The estimated rules explain correctly 95 percent of observed policy actions and surpass the market anticipation, made one day prior to a policy meeting, both in and out of sample.