Monetary Policy in Transition: Structural Econometric Modeling and Policy Simulations

Wojciech S. Maliszewski
Centre for Social and Economic Research CASE
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Non-Technical Summary

Conducting monetary policy in a transition environment is a difficult task. Available time series are short and often unreliable, there is an ongoing structural adjustment in the real sector of the economy, and even more dramatic developments in the financial sector. It is therefore not surprising that transition economies opted for exchange rate anchors at the beginning of the reform process. Fixing the exchange rate was relatively easy to implement and effective in taming inflationary expectations, but became difficult to sustain when inflation reached a moderate-level plateau. Exit from the peg was either volatile as in the Czech Republic or carried on in an orderly manner as in the case of Poland. In the latter the crawling peg system gradually evolved into a target zone with a decreasing rate of crawl of the central parity and a widening width of the band. At the end of the decade both Poland and the Czech Republic conducted their monetary policies in the framework of direct inflation targeting and with floating exchange rates. Although inflation targeting requires a thorough knowledge about a monetary transmission mechanism, understanding of this mechanism in transition countries remains weak, not only because of structural changes in the real and financial sectors, but also because of a short history of monetary policy under the floating exchange rate system. Researchers quickly documented that the highly uncertain relationship between monetary policy instruments and inflation may hamper implementation of the framework.

In this paper I attempt to shed some light on the effects of monetary policy on output and inflation and evaluate the effects of changes in the way monetary policy is conducted in the Czech Republic and Poland after introduction of inflation targeting framework in 1998. The results from econometric model indicate the dominant role of exchange rate in the monetary transmission mechanism. The typical unexpected monetary tightening during the fixed exchange rate and the target zone period leads to a persistent appreciation of the exchange rate and a temporary increase in the short term interest rate. In the inflation-targeting framework the monetary policy tightening is reflected in significant and persistent increase in the short-term interest rate, also leading to an exchange rate appreciation. Responses of prices and output are consistent with macroeconomic theory and other econometric studies: both prices and output decline after a contractionary monetary policy shock, but the response of output is faster than the response prices.