The Effectiveness of Monetary Policy in China: Evidence from a Qual VAR

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Summary

Interpreting monetary policy in China is difficult. This is because the People's Bank of China (PBoC) uses more than one instrument to implement monetary policy. A characterization of the monetary policy stance that does not draw on the entire instrument set of the PBoC remains incomplete.

The aim of this paper is to propose an alternative framework for estimation, which encompasses the multitude of instruments used by the PBoC and, at the same time, remains as close as possible to the standard time series models used so widely. Here we propose Dueker's (2005) Qual VAR as a highly useful framework to model Chinese monetary policy. The approach combines a VAR model with a binary variable reflecting, e.g., policy steps. The

assumption is that the binary policy observations are driven by a latent variable, which is also included in the VAR system. The latent variable is filtered out of the observables based on the two observable inputs, the binary policy dates and the model dynamics. In our case, the latent variable can be interpreted as reflecting the PBoC's tightening or easing pressure.

The models can deal with various policy instruments at the same time and delivers policy responses to shocks, i.e. the unexpected component of policy. A shock is interpreted as a surprise change in the latent policy stance that also affects inflation and output. Hence we do not estimate merely the response at selected policy dates, but locate a shock in periods in which the latent policy pressure moves unexpectedly. That also implies that policy is endogenous as the business cycle feeds back on policy through the VAR dynamics.

We find that the transmission of policy impulses to the rest of the economy is remarkably similar to the transmission process in advanced economies despite a very different monetary policy framework. We also find an important difference with respect to the transmission mechanism in advanced economies: bank loans do not respond to monetary policy shocks in way consistent with the VAR evidence on policy transmission in other countries. Our second finding is related to the asymmetries of tightening and easing policy on asset prices, which raises implications for financial stability and macroprudential policy.