What Measures Chinese Monetary Policy?

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Summary

This paper models the PBC's operating procedures in a two-stage vector autoregression framework. We decompose changes in policy variables into exogenous and endogenous components in order to find a "clean" monetary policy indicator whose changes are mainly policy induced. In the first stage, a VAR model, incorporating two groups of variables (policy and non-policy variables), is estimated. We disentangle policy-sector VAR residuals from those in the non-policy block. In the second stage, those residuals are used in a model that characterizes the PBC's operating procedures. We model the demand for and supply of reserves. In particular, we disentangle variations in excess reserves over time, arising from foreign exchange market interventions as the PBC is engaged in keeping the RMB's exchange rate within its targeted floating range. This model incorporates the PBC's multiple instruments – the money market interest rate, the central bank lending rate and the required reserve ratio – and its liquidity management needs as a result of foreign exchange purchases. We then carry out the following empirical tests with it:

i. Is the PBC targeting a quantity variable, such as excess reserves or total reserves?
ii. Or, is it targeting a price variable, like the money market interest rate or the central bank lending rate?
iii. Or, is it following hybrid operating procedures (a combination of interest-rate targeting and reserves targeting)?
iv. Have the PBC's operating procedures experienced a structural break in the post-2000 period?

Our main findings are twofold. First, the PBC's procedures appear to have changed over time. Second, its operating procedures are neither pure interest rate targeting nor pure reserves targeting, but a mixture of the two. A set of indicators all appear to contain information about the policy stance. It is therefore preferable to use a composite measure to measure the Chinese monetary policy stance. To this end, we construct a new composite indicator of the overall policy stance, consistent with our model. A comparison with existing measurement approaches suggests that the composite indices, rather than individual indicators, perform better in measuring the Chinese monetary policy stance.