Monetary Policy Transmission in China: A DSGE Model with Parallel Shadow Banking and Interest Rate Control

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Summary

This paper develops a dynamic stochastic general equilibrium (DSGE) model that is calibrated to real frictions in China's financial sector. A parallel shadow banking sector emerges to finance high-risk projects, as commercial banks face interest rate controls. In the baseline scenario, the central bank announces strictly binding benchmark deposit rates, with partially binding lending rates and "window guidance" on loan quotas. The unique model setup helps to shed light on the multi-faceted interactions between monetary policy, the commercial banking sector and the shadow banking sector in China.

The model is also extended to analyze the impact of interest rate liberalization on monetary policy transmission. We consider two forms of interest rate liberalization: a "partial liberalization" scenario in which the central bank removes interest rate controls but window guidance on loan quotas remains, and a "complete liberalization" scenario in which interest rate control ends and window guidance is turned off.

Our main findings are as follows. First, interest rate liberalization will induce a more effective monetary policy transmission. Second, in China's case, interest rate liberalization not only involves removing interest rate control, but also involves removing window guidance or quantity control on bank loans. In that sense, the prevailing view that China is now only one step away (removing the upper bound limit on deposit rates) from completing interest rate liberalization is not correct. Third, after interest rate liberalization, economic activity could respond with more volatility to different shocks. Fourth, liberalization of interest rates will attract deposits back into the commercial banking sector and rein in the expansion of the shadow banking sector.