Summary for non-specialists
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China's External Surplus: Simulations with a Global Macroeconomic Model

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The paper uses a multi-region DSGE model of the world economy (China, United States, euro area, rest of the world) to look at China's role as rapidly growing, emerging economy, on the one side, and large international creditor, on the other side. Contrary to China's experience, the textbook open-economy model would suggest economic catch-up to coincide with net capital imports and a (transitory) international debtor position.

The model captures two key elements of Chinese macroeconomic policy, namely (1) cross-border capital controls and (2) exchange rate management in the form of sterilised foreign exchange intervention.

The paper selects a set of shocks covering important aspects of China's economic transition and integration in the world economy, namely technological progress, labour supply growth, labour reallocation, precautionary saving and export growth, and investigates their ability to match key stylised facts, namely the large-scale accumulation of net foreign assets, persistent surpluses in trade balance and current account, high output growth, and declining (increasing) domestic demand shares of consumption (investment).

The simulations show that the set of shocks replicates well the external position of the Chinese economy in the benchmark setting with limited capital mobility and foreign exchange intervention, which supports the hypothesis that China's surplus represents capital exports driven by shifts in domestic saving supply, rather than shifts in foreign saving demand.

The simulations also highlight the importance of effective capital controls for the viability of China's exchange rate management. Increasing cross-border capital mobility, i.e. financial liberalisation, would require the central bank to accumulate foreign reserves far above current levels to offset appreciation pressure.

Finally, the analysis suggests that enhanced flexibility of the RMB exchange rate under the selected set of transition and integration shocks could reduce China's net creditor position and change the composition of growth from exports to domestic demand.

Robustness checks indicate that potential asymmetry of capital controls and alternative values for the elasticity of labour supply do not alter the results. The assumptions on expectation formation appear crucial, however. More specifically, the good performance of the model in replicating China's external position is conditional on the assumption that economic agents have fairly accurate expectations about the long-term nature of the transition and globalisation trends in the Chinese economy.