

Discussion on "Financial Crisis, Monetary Policy and Exchange Rate Dynamics"

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What does the paper do?

- This paper studies the optimal and time-consistent use of monetary policy to combat Sudden Stops.
- The model has collateral constraints that binds occasionally, and when the constraints bind, the economy sets off large capital outflows, which in turn generate substantial recessions in domestic economy.

Key features of model

- A monetary small open economy akin to Mendoza (2010).
- Import intermediate inputs are used for production with capital and labor, but a fraction of intermediate goods imports are subject to collateral constraints.

$$vY_{Ft}P_{Ft}^* - B_{t+1}^* \leq \kappa_t E_t \left\{ \frac{Q_{t+1}k_{t+1}}{\varepsilon_{t+1}} \right\}$$

pecuniary externalities vs occasionally binding

- Sticky prices, monopolistic competitive firms set prices with quadratic price adjustment cost (Rotemberg 1982).
- Modified Taylor rule

$$R_{t+1} = R \left(\frac{\pi_t}{\pi} \right)^{\alpha_\pi} \left(\frac{Y_t}{Y} \right)^{\alpha_y}$$

Constrained efficient allocation (CEA)

The paper first investigates constrained efficient allocation under different exchange rate regimes (flexible vs fixed). In each regime, the social planner chooses π_t , b_{t+1}^* , k_{t+1} , and y_{Ft} for each household directly, but faces the same constraints as firm-households.

Optimal monetary policy under discretion (under flexible exchange rate)

Given the assumptions that two distortions (monopoly power and terms of trade) are eliminated, the paper investigates

- case 1: monetary authority only choose inflation rates π_t
- case 2: monetary authority strictly target inflation $\pi_t = 1$ and choose capital inflow tax τ_{ct}
- case 3: monetary authority choose both inflation π_t capital inflow tax τ_{ct}

Key results

- Capital controls are welfare-reducing during a crisis and should be kept out of the control of the central bank;
- A smaller number of instruments can dominate the CEA allocation in terms of welfare.

1. Contribution

- Method to solve occasionally binding problem;
- New insights for macro-prudential policy;
- The first paper combines sticky price and asset price-based collateral mechanism.

2. Capital outflow and financial crisis

- Capital outflow leads to recession, but this could be a normal case as well, especially when the shock is small;
- If we consider financial crisis, time-inconsistent policy seems to be close the real world. For most countries, central bank will do something unexpected in the financial crisis. For example, QE in 2008 financial crisis, and China's policy in recent stock market crisis.

3. The mechanism of occasionally binding

- To what extent, the result is driven by the mechanism of occasionally binding ?
- In other words, will our result disappear if the constraint is always binding?
- how does this occasionally binding model differ from the credit constraints model with heterogeneous agent?
- If the constraint is occasionally binding, then the shock distribution matters. In other words, the policy depends critically on the shock distribution, which cannot be observed.

4. Implication for exchange rate regime choices

- The current version did not investigate the optimal monetary policy under fixed exchange rate regimes, so it is interesting to look at the issue of exchange rate regime.
- Will occasionally binding affect the welfare gap between flexible and fixed exchange rates?

5. Policy instruments

- In addition to monetary policy or capital control policy, two types of tax or subsidies are used to eliminate the distortions. I don't know if the tax on imports make sense, especially when ρ is small.
- Is there a simple way to get rid of this issue in the model? Otherwise, on one side, we say less instruments seem to be good; on the other side, actually we assume several tax policies, which do not really exist.

6. Calvo vs Rotemberg

- Can the model use Calvo pricing instead of Rotemberg pricing? Since Calvo pricing is easier to be calibrated than Rotemberg pricing.
- $\phi_p = 76$?

7. Sticky prices

- What is the target of optimal monetary policy in the model? What is the role of sticky prices?
- Flexible price equilibrium?

8. Calibration and robustness

- The model relies on quantitative simulation, so calibration and robustness check are important.
- For example, how big is the welfare difference under different policies?
Is it sensitive to parameters?