Discussion of
"Revisiting Macroprudential Policy In Open-Economy Models With Financial Frictions"
(Schmitt-Grohé and Uribe)

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June 2016

Motivation

- Recent literature calls for capital controls (CC) to stem excessive credit growth

    - Borrowing capacity depends on collateral values

    - Agents over-borrow since they fail to internalize pecuniary externalities

    - Planner uses ex-ante CC to reduce likelihood and severity of crises

- Does this mean that CC should be used countercyclically?

    - This paper addresses this question in the context of Bianchi (2011)

Model

- SOE model with traded and nontraded endowments

- Borrowing capacity depends on collateral constraint

$$d_{t+1} \leq \kappa \left(y_t^T + p_t y_t^N \right)$$

- Agents fail to internalize how domestic consumption supports p_t

First order conditions

- Assume the collateral constraint is not binding at time t

- The Euler equation of individual agents is

$$u'_{T,t} = \beta R E_t \left[u'_{T,t+1} \right]$$

- The social planner's Euler is

$$u'_{T,t} = \beta R E_t \left[u'_{T,t+1} + \mu_{t+1} \frac{\partial p_{t+1}}{\partial c_{t+1}} \kappa y^T_{t+1} \right]$$

where $\mu_{t+1} \geq 0$ is the multiplier on the collateral constraint
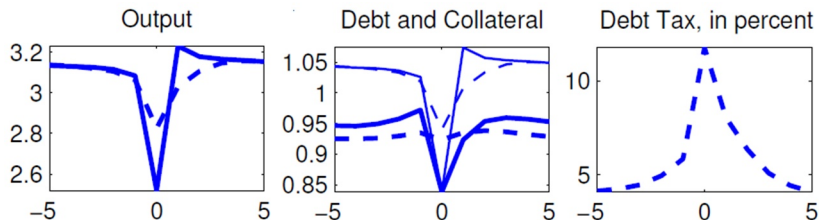
Optimal capital control tax

- The optimal capital control tax is

$$\tau = \frac{\beta R \kappa}{u'_{T,t}} E_t \left[\mu_{t+1} \frac{\partial p_{t+1}}{\partial c_{t+1}} y^N_{t+1} \right]$$

- Optimal CC increase with:
  - the likelihood that $t+1$ constraint becomes binding, i.e. crisis risk
  - the expected tightness of the constraint, i.e. severity of the crisis

Capital controls around crises

- Simulations of crisis episodes suggest CC are highly pro-cyclical

- Crisis is caused by extreme shock: hard to react beforehand
- Simulations consider episodes when constraint binds only without CC
- What if the constraint binds with CC too?
  - → CC would be positive before crisis and then go to zero

Capital controls over the business cycle

- The model considers business cycles driven by endowment shocks
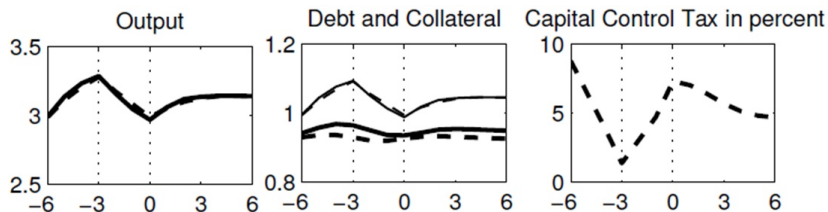
- When output is high:
  - → Next-period output likely to remain high
  - → Agents tend to reduce debt to smooth consumption
  - ⇒ Fairly natural to reduce CC

- Prevailing intuition is that CC should be countercyclical with respect to debt, not output

Alternative shocks

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  - Positive growth shock increases both output and debt

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- When world interest rates are low
  - Agents increase debt and thus the likelihood of a crisis when rates rise
  - This should require higher CC $\rightarrow$ countercyclical wrt debt
  - With investment, output would increase $\rightarrow$ countercyclical wrt output

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- What if swings in credit are driven by exuberance cycles?
    - In current class of models, agents perfectly assess crisis likelihood
    - In real world, agents appear much less sophisticated
        $\Rightarrow$ Possibly greater scope for countercyclical CC

Conclusion

- Very nice paper

- Highly relevant policy issue

- Forces deeper thinking about workhorse CC models

- Various directions for further research
  - Robustness of the results to alternative crisis definition
  - CC countercyclical with respect to output or debt?
  - Alternative sources of shocks