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

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June 2016

\(^1\)The views expressed herein are those of the author and should not be attributed to the IMF, its Executive Board, or its management.
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
The optimal capital control tax is

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

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

  ![Graphs showing Output, Debt and Collateral, and Debt Tax](image)

- 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

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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

- What about growth shocks (Aguiar and Gopinath, 2007)?
  - Positive growth shock increases both output and debt

CC are often motivated by swings in global financial conditions. When world interest rates are low, agents increase debt and thus the likelihood of a crisis when rates rise. This should require higher CC countercyclical with respect to debt. With investment, output would increase countercyclical with respect to output.

What if swings in credit are driven by exuberance cycles? In the current class of models, agents perfectly assess crisis likelihood. In the real world, agents appear much less sophisticated. ⇒ Possibly greater scope for countercyclical CC.
Alternative shocks

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- CC are often motivated by swings in global financial conditions

- 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
Alternative shocks

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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