Discussion on "Macroprudential Policy with Leakages"

by Julien Bengui and Javier Bianchi

Paulina Restrepo-Echavarria

Federal Reserve Bank of St. Louis

Financial Frictions: Macroeconomic Implications and Policy Options for Emerging Economies, 2021

Motivation and Question

- Emerging markets have a large fraction of informal (unregulated) agents:
  - productive sector
  - *financial sector*

- After the financial crisis and in the presence of the lower bound, macroprudential policy has become an important tool

- A naturally relevant question is: how is the optimal design of macroprudential regulation affected by the presence of informal (unregulated) agents?

Big Picture

- Any type of policy is subject to imperfect regulation enforcement, not just macroprudential policy:
  - what makes it so special?
- Tighter link between motivation/assumptions and characteristics of the financial informal sector
- The problem with designing the optimal macroprudential policy is that most likely B_u is unobserved
- Connection between the three period model and the infinite horizon model (What carries through?)

Modeling assumptions

- (Maybe) more minor:
  - Why do agents consume only the tradable good in the 1st period?
  - Why would formal and informal agents have identical endowments?
  - Taxes affect only initial debt, but not rolling over decisions?

- Key:
  - Cobb-Douglas for consumption in the three period model, relaxed in the infinite horizon but effect not explored
  - the fraction of unregulated agents is exogenous (circumvention cost to endogenize)

Implications of Cobb-Douglas Assumption?

- $\uparrow D_0 \Longrightarrow \downarrow C^T \Longrightarrow \downarrow P^N$ for any income shock at date 1:
  - from the credit constraint, this implies a lower borrowing capacity and a tighter borrowing constraint when this constraint is binding
  - But, what if there is a lower degree of complementarity between tradables and non-tradables? (allowed for this in the infinite horizon model but implications not explored)

- The paper states that the mechanism behind your results is similar to that of a limited commitment model, however:
  - $\uparrow C \Longrightarrow \uparrow P^N$ by $\frac{\omega}{(1-\omega)y^N}$ and hence raises overall borrowing capacity by $\frac{\kappa\omega}{1-\omega}$
  - increased consumption relaxes the borrowing constraint? In LC a tighter constraint increases consumption

Proposition 1 (what assumptions does it rely on?)

- Proposition 1: (Substitutability in borrowing decisions) For a given tax rate, the equilibrium borrowing of unregulated agents is decreasing in the amount of borrowing of R agents and vice versa

- Seems like a crowding out phenomenon, which sounds counterfactual to me

- "... leakages make the macroprudential tax introduce a new distortion that takes the form of an even more excessive indebtedness of the unregulated sphere. Correcting this distortion requires reducing the economy's indebtedness further and therefore calls, paradoxically, for even tighter borrowing restrictions on the regulated sphere, a squeezing effect." This comes from the crowding out effect of proposition 1

- How does proposition 1 translate to the infinite horizon model?
  - the long-run frequency of financial crisis is not increasing in γ
  - seems like it should (countries with large informal sectors as more prone to financial crisis)

Implications of exogenous share of unregulated agents

- We know the informal sector responds to tax pressures (its size is endogenous)
- There is a tradeoff when deciding to operate informally:
  - benefit: pays no taxes
  - cost: with certain probability get caught and pay a penalty
- Not a fan of the circumvention cost to endogenize it
- In the infinite horizon case γ is exogenous, this makes a big difference for the results:
  - "... leakages may reduce the effectiveness of macroprudential policy by making future borrowing capacity less responsive to a tax on current borrowing, but are not powerful enough to overturn its effect."
  - the event analysis will presumably look pretty different