Discussion of *Welfare Analysis of Implementable Macroprudential Policy Rules: Heterogeneity and Trade-offs* by C. Mendicino, K. Nikolov, J. Suarez & D. Supera

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Research Question

- Provide a computable GE model with banking
- ..to test welfare implications of Macro-Prudential Policies (MAPRU)
- essentially: examine effects of changing capital requirements and making them sensitive to cycles

Research Question

A very challenging task:

- A lot of heterogeneous agents (savers, borrowers, entrepr., bankers)
- A lot of market failures (limited liability, dep. insurance, CSV, collateral requirements)
- Idiosyncratic and aggregate shocks

What is MAPRU?

Scope for Micro-Prud. Policy (MIPRU):

Make financial system safer - There are incentives to take excessive risks and to shift losses to tax payers (Moral Hazard) $\Rightarrow$ *Capital Requirements*

Why do we need MAPRU?

If all banks comply with MIPRU through asset shrinkage $\Rightarrow$ *systemic effects (credit crunch, fire sales, systemic effects) - Pecuniary externalities arising from general equilibrium with distortions*

Then, MAP plays a role if optimal MAP $\neq$ optimal MIP

How does this paper address MAPRU?

It does because it is a general equilibrium model: takes into account effect of MIPRU on total credit, **but**

- Limited policy tools (only cap. ratios)
- Model generates limited endogenous effects on asset prices
- Most of the effects arise from big default costs (30% of assets)

Still very interesting exercise and sufficiently complex

Key conjectures in current debate on cap. ratios

- Banks' current capital ratios are too low, too much risk is shifted to taxpayers (MH from deposit ins., too big to fail banks, non-internalized costs of fire sales,..)
- Higher capitalization reduces these costs, make depositors safer and less nervous (reduces prob. of bank runs)
- BUT: higher cap. ratios reduce lending. Or not?
- Not clear. Reducing risk adds value and make banks' equity more attractive!

Arguments supporting view that higher cap. ratios generate less lending

- THIS PAPER: Equity is in limited supply (inside equity)
- NOT IN THIS PAPER: Deposits offer liquidity services - Higher cap. ratios reduce supply of liquidity, although deposits liquidity depends on banks being safe

Key Assumptions in this model (1)

- Deposit insurance paid for by taxpayers
- Depositors are not totally immune from banks failures: they suffer a bit from banks default
- Housing is used as collateral
- Debt contracts are based on CSV (shocks on borrowers' revenue are private info.)

Key Assumptions in this model (2)

- Households (savers and borrowers) are risk-averse but they are fully insured against diversifiable risks
- They have access to bonds only (no equity)
- Supply of equity is provided by risk-neutral OLG of "entrepreneurs" and "bankers"
- These OLG agents produce equity capital and "donate" dividends to households

Logic of the Model

- Limited Liability + Deposit Insurance ⇒ banks and firms' leverage too high ⇒ too much default
- Higher cap. ratios ⇒ less default, less taxes, higher lending spreads (good for lenders)
- Since equity is scarse, higher cap. ratios and higher lending spreads ⇒ less welfare for borrowers eventually

Key insights

- Raising cap. ratios is almost always good because there is a lot of moral hazard
- But "bankers" have a point when they complain about regulation: too high cap. ratios may reduce investment
- Counter-cyclical cap. ratios not very beneficial (business fluctuations have small welfare costs (as in Lucas ('03)?)

Key insights

- Admati-Hellwig would say: there is no reason why a higher cap. ratio should reduce lending as lending depends on total banks liabilities
- But they assume that equity and other assets are substitutable (outside equity)
- In this model savers cannot use part of their wealth to buy banks' equity

I think that this should be better justified: limited participation, transaction costs, benefits from control,..?

Some other problems

- Deposit insurance plays big role but not well justified (no bank runs, diversification across banks is possible)
- Households are risk averse but receive dividends from risk-neutral OLG "agents" - With risk-averse OLG bankers, return on equity would depend on cap. ratios
- Not clear that CSV justifies optimality of standard debt contracts since aggregate shocks are observable - Equity contracts may be better

Why not testing effects of other policies?

- Let the government make transfers, buy assets
- Let banks pay for deposit insurance
- Tax dividends