Benefits of Macro-Prudential Policy in Low Interest Rate Environments (by Alejandro van der Ghote)

Discussion

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What is the paper about

- paper develops parsimonious macro-finance model
  Gertler-Kiyotaki (2010), Brunnermeier-Sannikov (2014)
- banks issue non-contingent bonds, rent out capital to firms
- bank pays out equity only when it exits (exogenous exit rate)
- law of large numbers:
  as if banks have constant dividend-equity payout ratios
- negative shocks to value of capital deplete bank net worth
  - ▶ banks funding-constrained, so households rent out capital
  - ▶ but this is less efficient; capital misallocation lowers output!
- households are afraid of this (risk aversion):
  interest rate drops a lot when bank net worth drops a little
- ZLB binding: under-utilization on top of misallocation
  - ▶ also negative feedback loop

- macroprudential limits on bank leverage have two uses
  - ▶ reduce systemic risk (banks less often funding constrained)
  - ▶ this lowers households' demand for self-insurance
  - ▶ natural rate increases, less likely to be negative
  - ▶ eliminate (or lessen) ZLB problems

COMMENTS

- households are capitalists; they receive income in form of
  - ▶ interest from non-contingent bonds
  - ▶ bank dividends
  - ▶ capital rents (if bank net worth low enough, $\eta < \bar{\eta}$)
- but they cannot have negative net worth (no net borrowing)
- households have no labor income
  - ▶ might matter for welfare analysis (wages)
  - ▶ might create high consumption volatility
    $\Rightarrow$ strong effect on interest rates given CRRA preferences
- could explore adding labor income or some endowment
  - ▶ would be nice to see aggregate consumption over cycle
  - ▶ natural rate negative for plausible consumption volatility?

- very rigid payout policy: always pay out fraction of net worth
- banks (in aggregate) are not allowed to retain more earnings
- not even when the interest rate is *negative*
  ▶ this is exactly when generating future profits increases value
- maybe allow banks to retain more earnings when $\eta < \bar{\eta}$
  $\Rightarrow$ because then profitability is high (and funding cheap)
- right now, model forces banks to return equity (net worth)
  ▶ in particular, at times when households want it the least
  ▶ households prefer claims to future dividends when risk high
- this might also affect bank risk taking
  ▶ why build up equity…
    …if forced to pay it out when pricing kernel tells you not to

Stochastic steady state too fragile?

- invariant distribution: most mass *below* 'well capitalized' $\bar{\eta}$
  - ▶ some regulatory bank supervisors may protest
- most of the time:
  interest rates are either negative or banks disintermediated
- model is not only about tail risk:
  aggregate productivity is in fact low *most of the time*!
- this might change if banks allowed to set dividends freely
  - ▶ maybe governance regulation would be important in model
- related question: how do you define a financial crisis?
  and what does model imply for frequency of financial crises?

- need definition for transfer τ_t from households to banks
  - isn't that mostly dividends, so $\tau_t < 0$?
- macroprudential policy depends only on bank wealth share
  - could also depend on bank lending, aggregate productivity
  - lesson from CCyB implementation:
    one indicator may not be enough to capture financial cycle
  - maybe wealth share is sufficient statistic in your model,
    but would be useful to clarify in paper
- definition of 'boom' not very intuitive
  - it's actually when productivity is highest (zero misallocation)
- risk determines interest rate in this economy
  - natural rate inversely related to productivity (unless η high)
  - bank funding cost highest when intermediation most scarce
  - further slows down recoveries

- ambitious paper, many moving parts work together nicely
- policy makers should take note of the central message
  - ▶ macroprudential policy affects natural rate (risk channel)
  - ▶ this matters for monetary policy, because of ZLB
  - ▶ optimal macroprudential policy:
    $\Rightarrow$ also makes the job of monetary policy authority easier!!
- two things potentially worthwhile to explore in the model
  - ▶ dividend choice
  - ▶ implied frequency of financial crises
- I'm really looking forward to the next version of the paper!