Discussion of “Breaking Bagehot’s Rules: Loan Contracting with Advantageous Central Bank Funding” by C. Eufinger and Z. Ye

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Overview

- Theory: LOLR at penalty rates (Bagehot, 1873)
- Practice: e.g. LTRO, TLTRO by ECB, BTFP by Fed
- This paper: Advantageous central bank funding
  - Unintended consequences:
    Over-investment, excessive risk-taking
  - Derive optimal central bank funding scheme:
    Preferential rates, collateral requirements, funding limits
- Elegant model, captures interesting trade-offs, a highly relevant issue

Model and main frictions

- Investors (market funding): Unlimited supply at rate r
- Firms: Endogenous scale and risk (moral hazard)
  - Market finance leads to underinvestment to curtail risk-taking
- Banks: Can monitor firm (removes firm MH)
- BUT bank moral hazard (as levered institutions)
  - Endogenous bank leverage and loan contract
  - How to design central bank funding scheme to restore bank incentives?

Results summary

- Advantageous central bank funding:
  - Banks induce over-investment in firms to take advantage of preferential funding rates
  - Banks forgo monitoring of the firms under preferential collateral conditions
  - Interaction: Preferential funding rates more detrimental under preferential collateral conditions
- Optimal central bank funding scheme to restore efficiency:
  - Sufficiently preferential rates
  - Sufficiently stringent collateral condition
  - Limited take-up

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Bank equity: The invisible elephant

- Bank moral hazard stems from its leverage
- Advantageous CB funding provides indirect recapitalization:
  - Advantageous funding rate $\rightarrow$ scale dependent subsidy
    - Hence incentivizes over-leverage and over-investment
    - Necessitating a take-up limit
  - Stringent collateral requirements imposes losses on bank equity
    - Modelled as loss upon failure
    - Why is imposing losses on equity not possible otherwise? (Senior existing creditors?)

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Other recapitalization possibilities?

- Optimal CB funding mimics lump-sump subsidy / recapitalization
  - Underhand bailout?
  - Analogy to lump-sump v.s. distortionary taxation
- Formalize the constraints on bank's equity or loss-absorption capacity?
  - Bail-in tool?
  - Should the optimal funding scheme depend on bank capitalization level?

Risk-insensitivity and bank moral hazard

- Additional friction: CB funding (unlike market funding) is risk-insensitive
  - The relative importance of this channel versus the leverage channel?
  - Policies to correct this?
- Particularly relevant when under-collateralized
  - Positive predictions on the effect of CB funding on bank risk-taking incentives depending on bank characteristics that determine riskiness of CB funding

Planner trade offs

- Optimal CB funding scheme achieves FB outcome
- Intricate interaction of the unintended consequences of preferential funding is overshadowed
- Would be nice to formalize the fundamental constraints faced by banks and thus the regulator when designing the optimal funding scheme, to have some of those inefficiencies arise on-equilibrium-path

Summary

- This paper: Advantageous central bank funding
  - Unintended consequences:
    Over-investment, excessive risk-taking
  - Derive optimal central bank funding scheme:
    Preferential rates, collateral requirements, funding limits
- Very concise and relevant analysis
- Main suggestions:
  - Bank equity and other recapitalization tools
  - More testable predictions
    (bank capitalization, collateral availability, risk)