Nobel Symposium
"Money and Banking"

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Nobel symposium: Presentation on Bank Regulation

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Trends in the study of bank regulations

- From history to current affairs
- From credit risk to liquidity risk
  - Academic concerns about aggregate liquidity shortages and the resulting systemic insolvency predate financial crisis
- From bank regulation to systemic regulation…
- From theory to empirical studies using extraordinarily detailed data sets

Outline

- Why regulate banks?
- What forms does micro-prudential regulation take?
- What are regulatory incentives? Who regulates the regulator?

Special focus

- Should monetary policy be sensitive to financial stability issues?
- What role is there for macro-prudential regulation?
- Should regulatory requirements be harmonized?

Why regulate banks?

1) Structure makes them fragile
2) Externalities/utility-like function
3) Utility plus banking-specific aberrations
4) Authorities have powers that banks do not have
5) Because authorities intervene

Why regulate banks: 1) Structure makes them fragile

- Illiquid assets financed with demandable liabilities
  - Deposits liquid and money-like – low asymmetric information (Gorton and Pennachi (1990), Stein (2012), Dang, Gorton, Holmstrom (2015))
  - Demandable deposits – share liquidity demand risk amongst depositors (Diamond and Dybvig (1983))
  - Demandable deposits more liquid than underlying assets – banker commits recovery skills (Diamond and Rajan (2001))
  - Demandable deposits reduces borrower moral hazard and cost of financing (Calomiris and Kahn (1991))
- Fragility due to
  - Sunspot panics
  - Asset value uncertainty when highly leveraged
  - Aggregate liquidity shortages

Why regulate banks? 2) Externalities/utility

- Banker does not internalize the full effect of bank's failure
  - Payments collapse (Friedman and Schwartz (1963))
  - Local lending collapses (Bernanke (1983))
    - Relationships/soft information (Fama (1984), Rajan (1992), Petersen and Rajan (1994,1995), Stein (2002), Khwaja and Mian (2005))
  - Fire sale (Shleifer and Vishny (1992)) and charge on common pool of liquidity
    - Systemic collapse through ex ante linkages (Allen and Gale (2000))
    - Contagious runs by drawing on a common pool (Diamond and Rajan (2005))

Why regulate banks? 3) Utility (discussed previously) plus banking-specific aberrations

- Optimism/neglected risks
  - Geanakoplos (2010), Gennaioli, Shleifer, and Vishny (2015)
- Agency: Hard to tell true state – short termism and evergreening/overlending (Rajan (1994))
  - While the music's playing…
  - Role of inter-bank competition
    - Mian and Sufi (2009), Ramcharan and Rajan (2015), Granja, Leuz, Rajan (2018)
- Malfeasance/fraud
  - Paradox of liquidity (Myers and Rajan (1998) …because that is where the money is.
  - Asset quality misrepresentation (Piskorski, Seru, Witkin (2017))

Why regulate banks? 4) Authorities have powers that banks do not have

- Central banks have the ability to expand their balance sheet and substitute liquid assets for illiquid ones in private hands.
- Government can credibly access longer term non-collateralizable private wealth through taxation, and can inject value into the banking system (Holmstrom and Tirole (1998))

Why regulate banks? 5) Because authorities intervene

- Deposit insurance
  - Risk shifting moral hazard (Kane (1985))
- Expected liquidity support/ accommodative policy/ central bank put
  - More leverage (Stein (2012), Farhi and Tirole (2012))
  - As well as more illiquid assets (Diamond and Rajan (2012))
  - Too big to fail/too many to fail

What forms does micro-prudential regulation take?

- Capital requirements: Why?
  - Governance by equity vs governance by debt
    - Hellwig (2016) citing Furstenberg
    - Lehman bankruptcy
  - Budget constraint for risk
  - Loss-absorbing buffer (Diamond and Rajan (2000))
    - Lower debt means more franchise value
  - Debate: What is the optimal amount of capital? Modigliani Miller world or not (Admati and Hellwig (2014))
- Liquidity
  - Net stable funding (limit on short term funding)
  - Liquidity coverage ratio (asset composition)
    - Do both not collapse to net short term debt (Kashyap et al. (2014))

What forms does micro-prudential regulation take? Contd.

- Supervision/stress tests
  - Value of cleaning up the walking wounded (Caballero, Hoshi, Kashyap (2008), Diamond and Rajan (2011))
  - Confidence building rather than early warning (Borio(2014))
- Regulating bank structures/functions (typically after busts)
  - Narrow banking
  - Ring fencing/separately capitalized sub/holding company
  - Glass Steagall/Volcker rule/Breaking up the bank
  - Central bank-provided electronic money/public provision of liquidity
- Compensation regulation
  - Not about levels but form: risk adjustment/claw backs/long term vesting

Regulatory incentives

- Underactive ex ante, over active ex post
  - Taking away the punchbowl when the party gets going…versus pick up the pieces
- Pro-cyclical regulation
  - Liberalize into boom
  - Overregulate post crisis
  - Creates impetus to deregulate as memory fades
- Forbearance
  - S&L crisis, Japan in the 1990s
    - State regulators more lenient than federal (Agarwal, Lucca, Seru, and Trebbi (2014))
  - Prompt corrective action

Ongoing debates: Should monetary policy address financial stability?

- No
  - Monetary policy has limited effect
  - Overcomplicates monetary policy setting and communication
    - Targets and instruments
  - Use macro-prudential

- Yes
  - Price stability≠ Financial stability (Borio, White)
    - Monetary policy affects liquidity and both anticipating too much liquidity and too little can be problematic
  - Can be woven into medium term inflation forecast targeting framework
    - When more targets than instruments, tradeoffs in using instruments, not abandonment of a target
  - Macro-pru: Untested and partial – need to bring all instruments to bear.
    - Monetary policy gets into all the cracks (Stein, 2013)

Macroprudential regulation

- Objectives (Borio (2014))
  - Protect financial cycle from banks – constrain booms
  - Protect banks from financial cycle – promote resilience if bust

- e.g. Countercyclical capital – but market capital requirement is pro-cyclical (Diamond, Hu, and Rajan (2017))
  - Dealing with shape-shifting finance (Portes (2014))

Is there a need for regulatory harmonization across borders?

- Yes
  - Level playing field
  - Otherwise race to the bottom
  - Easier to sell domestically – Basel made us do it
- No
  - Skewed towards dominant country preferences
  - Too little variety, coordinated mistakes, prevents race to the top
  - Reduces democratic oversight

Conclusion

- Growing recognition that systemic regulation is key.
  - Regulators battle a moving and shape-shifting target
- Monetary policy not irrelevant to financial stability.
- Risk of fighting the last battle vigorously. Banks strictly regulated…
  - Risk and talent migration to the shadow
  - Are we ham-stringing a key player?
- Broad, robust, and timely regulation rather than micro-management