Competition and Stability in Banking
An Economist's Perspective

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"The legislative reforms adopted in most countries as a response to the banking and financial crises of the 1930s shared one basic idea which was that, **in order to preserve the stability of the banking and financial industry, competition had to be restrained**."

Tommaso Padoa-Schioppa (2001)

This presentation

- Selective review of main results on the relationship between competition and stability in banking
- Do we need a special competition policy for financial sector?

Outline

- The risk-shifting problem
- The charter value hypothesis
- Alternative views
- Other related results
- Concluding remarks

Part 1

The risk-shifting problem

A numerical example (i)

- Consider a risk-neutral investor that can choose between

  → Prudent asset

$$\text{Investment } 100 \rightarrow \text{Return } 15$$

  → Gambling asset

$$\text{Investment } 100 \rightarrow \text{Return } \begin{cases} 30, & \text{with prob. } 1/3 \\ 0, & \text{with prob. } 2/3 \end{cases}$$

- Gambling asset is dominated by prudent asset

  → Return of prudent asset = 15%

  → Expected return of gambling asset = 10%

A numerical example (ii)

- Assumptions:
  - → Investor has to borrow required funds at rate r
  - → There is limited liability
  - → Moral hazard: Choice of asset is not observed by lender
- Question: Which asset will the investor choose?

A numerical example (iii)

- Payoffs for investor when $r = 5\%$

  → Prudent asset: $15 - 5 = 10$

  → Gambling asset: $(30 - 5)/3 = 8.3$

  → Investor will choose prudent asset

- Payoffs for investor when $r = 10\%$

  → Prudent asset: $15 - 10 = 5$

  → Gambling asset: $(30 - 10)/3 = 6.7$

  → Investor will choose gambling asset

- **General result: Investor prefers to gamble when $r > 7.5\%$**

The risk-shifting problem

- Inefficient choice of investment under
  - → Debt finance
  - → Limited liability
  - → Moral hazard
- Problem is more severe
  - → When borrowing rates are high
  - → Or, more generally, **when margins are low**
- Reference: Stiglitz and Weiss (1981)

Part 2

The charter value hypothesis

The charter value hypothesis

- Suppose that investor is bank funded with deposits
- What is the effect of increased competition?

  → Reduction in interest rate margins

  → Incentives to take more (inefficient) risk

  → Effect reinforced by loss of charter upon failure
- Conclusion: **Competition is bad for stability**

The regulatory response

- What would be the appropriate regulatory response?

  → Capital requirements

  → **Equity reduces risk-shifting incentives**

- Interpretation of 1988 Accord of Basel Committee (Basel I)

  → Response to increased competition and deregulation

- Reference: Repullo (2004)

Part 3

Alternative views

Competition and default risk

- Suppose that investor is firm borrowing from bank
- What is the effect of increased competition among banks?

  → Lower loan rates

  → Incentives for firms to take less risk

  → Safer loan portfolios

- Conclusion: **Competition is good for stability**
- Reference: Boyd and De Nicoló (2005)

The role of default correlation

- Previous result assumes perfect correlation in loan defaults

  → Firms' prob. of default = Banks' prob. of failure

- What happens with imperfect correlation?

  → Increased competition reduces loan rates

  → Lower interest payments from non-defaulting loans

  → Lower margins (that provide buffer to cover loan losses)

- Conclusion: **Too much competition is bad for stability**

- Reference: Martinez-Miera and Repullo (2010)

Part 4

Other related results

The last bank standing effect

- Giving ex-post monopoly rents to surviving banks after crisis

  → Increases margins upon survival

  → Induces banks to take less risk ex-ante

- Conclusion: **Ex-post monopoly rents are good for stability**

- Reference: Perotti and Suarez (2002)

The role of deposit insurance

- Insuring deposits reduces the cost of banks' funding

  → Increases margins and charter values

  → Reduces incentives to take risk

- Conclusion: **Deposit insurance is good for stability**

- Reference: Repullo (2005)

The role of state aid

- Same effect as deposit insurance
- However, asymmetric aid (to one bank and not others)

  → Reduce margins of competitor banks

  → Induces them to take more risk

- Conclusion: **Asymmetric state aid is bad for stability**

- Reference: Hakenes and Schnabel (2010)

Concluding remarks

Summing up (i)

- Large literature on the effect of competition on stability
- Many different results

  → Depending on specific economic environment
- Empirical analysis could be useful

  → But it is unlikely to be conclusive

Summing up (ii)

- Good things for financial stability
  - → Charter values (current and future market power)
  - → Deposit insurance
  - → Capital requirements
- Bad things for financial stability
  - → High loan rates (current market power)
  - → Asymmetric state aid or guarantees

A special competition policy?

- Do we need a special competition policy for financial sector?
  - → **Probably yes**
  - → Social costs of financial crises are huge
- Such policy is likely to be very complex, and should consider
  - → Consumer protection (deposit insurance)
  - → Prudential regulation (capital requirements)
  - → Dynamic aspects of competition (last bank standing)
- **Regulators need to upgrade their research capabilities**

References

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