Comments on "Competition, Stability, and Efficiency in the Banking Industry"

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Disclaimer

The views presented in this discussion are my own and do not necessarily reflect the views of the Federal Reserve Bank of New York or the Federal Reserve System.

Overview

- Brief review of the model and results
- Highlight a compelling finding
- Thoughts on additional direction and focus

Model Structure and Main Results

- Three key model features:
  - Endogenous entry and exit of banks over time
  - Limited liability for bank owners
  - Agency conflicts between bank owners and managers (managers are myopic relative to owners)

- Relative to the social planner's outcome, calibrated model results feature:
  - More intermediation (lending and deposits) and higher output
  - More risk-taking
  - More volatility of output

- Imply a role for a policymaker to move economy closer to the social planner's outcome

Policymaker has a Rich Set of Tools

- Policymaker has four levers it can alter:
  - Entry costs – competition
  - Governance – manager myopia and thus agency conflicts
  - Leverage – owner "skin in the game" and thus risk appetite
  - External funding cost (~fed funds rate) – impact of monetary policy
    - In an earlier version of the paper, this also proxied for deposit insurance cost
- Paper examines the impact of each of these, alone and (most interesting) in combination
  - Many compelling results!
    - Competition and risk; competition and monetary policy impact; "outside the model" factors like shadow banking, fintech, TBTF
- My focus: interaction of leverage and governance

Interaction of Leverage and Governance

- Compelling finding: effectiveness of leverage constraints and governance improvements are linked
- The effects of leverage constraints on risk-taking are amplified at well-governed banks (those with less myopic managers)
- Important because leverage constraints (capital requirements and stress testing) and governance (especially via supervision) are key real-world tools of bank supervisors/regulators
  - So interactive effects are particularly pertinent
  - Lots of prior focus in the literature on leverage constraints – innovation here is the additional impact of governance and interaction between the two
- What is the evidence?

Leverage and Governance in the Model

Table A2: Regulatory Policy Counterfactuals: Short-Run versus Long-Run

	Mitigating agency SR	Mitigating agency LR	Tightening leverage SR **	Tightening leverage LR **	Agency and leverage SR **	Agency and Leverage LR **
N	3	3.07	3	4.82	3	4.87
S	-2.7%	-1.8%	-16.5%	-15.1%	-16.6%	-15.2%
D	-1.3%	-2.7%	-23.3%	-48.6%	-20.2%	-47.2%
Z	-1.3%	0%	-23.3%	-17.5%	-22.2%	-16.4%
D/E	-6.5%	-2.7%	-48.6%	-48.6%	-47.2%	-47.2%
p	3.1%	2.1%	17.9%	16.6%	17.0%	15.8%
R	0 bp	-0.1 bp	1.5 bp	1.0 bp	1.4 bp	0.8 bp
r_D	-0.2 bp	0 bp	-2.7 bp	-2.1 bp	–2.6 bp	-2.0 bp
π^*	0.5%	-3.3%	25.4%	-25.9%	27.4%	-25.9%
E^*	5.6%	0%	49.1%	0%	50.9%	0%
V	7.8%	3.3%	42.0%	-17.6%	45.8%	-16.5%
F/Y	-40.4%	-12.3%	-486%	-382%	-509%	-395%
Y^*	-0.9%	0%	-24.5%	-18.4%	-24.0%	-17.9%
cv(Y)	-8.9%	-5.5%	-55.3%	-49.6%	-54.8%	-49%
cv(E)	-4.1%	-2.8%	-23.1%	-21.4%	-22.9%	-21.2%

Column 1-4: Percent deviations from the benchmark. Columns 5-6: Percent deviations from mitigating agency. $Y = p(S) \cdot A \cdot S \cdot Z$. Note here that the entry cost *kappa* is held fixed and so in the short-run equity $E^* \neq \kappa$. * denotes a row is in millions. ** denotes that the debt to equity ratio binds in that column. Columns 1-2 increase β from 0.60 to 0.65. Columns 3-4 impose the leverage constraint of $\lambda = 8$.

Leverage and Governance in the Empirical Analysis

Table 3: Competition, Charter Value, and Risk

Competition, Charter Value, and Risk

	Charter Value			Bank Risk				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bank Competition	-0.6146***	-0.6076**	-0.6296**	0.6618***	0.6572***	0.6704***	0.5994***	0.6265***
	(0.2242)	(0.2471)	(0.2468)	(0.1859)	(0.1992)	(0.1951)	(0.1778)	(0.1787)
Leverage-Lagged	-0.0320***	-0.0307***	-0.0322***	0.0243***	0.0234***	0.0244***	0.0119**	0.0142**
	(0.0077)	(0.0072)	(0.0075)	(0.0047)	(0.0048)	(0.0047)	(0.0048)	(0.0056)
Ln(Bank Assets)-Lagged	-0.3172***	-0.3235***	-0.3190***	-0.1978**	-0.1937**	-0.1968**	-0.1919**	-0.1968**
	(0.1117)	(0.1117)	(0.1125)	(0.0751)	(0.0776)	(0.0757)	(0.0748)	(0.0742)
% Institutional Ownership		0.6926***			-0.4530***		-1.1725***	
		(0.1895)			(0.0837)		(0.1968)	
Blockholders Top 10			0.4673**			-0.2711**		-1.1070***
			(0.2065)			(0.1150)		(0.2414)
Leverage*Institutional Ownership							0.0497***	
							(0.0129)	
Leverage*Blockholders-Top 10								0.0599***
								(0.0174)
Observations	1994	1994	1994	1994	1994	1994	1994	1994
R-squared	0.8496	0.8527	0.8507	0.7898	0.7925	0.7905	0.7945	0.7919

Leverage and Governance: Big or Small?

- Regression results suggest the amplification effect could be substantial
  - In contrast to the model, where effect appears to be small
- One standard deviation increase in institutional ownership doubles the impact of leverage on risk
- Caveats:
  - Paper does not present sample statistics so it's difficult to judge size of findings
  - Standard deviation of institutional ownership from Garel, Petit-Romec, and Vennet (*JFI* 2022) – comparable sample and sample period? Comparable definition?
  - Leverage is actual leverage, not leverage constraint. Variation is cross-sectional under a common regulatory regime

Additional Interpretations of the Model

- Key frictions are limited liability and agency conflicts. These are common to many industries and firms
  - Why is this a model of banking?
  - How do banks differ from “firms”?
  - What is the externality that motivates regulation?
- In the model, limited liability is conceptually like deposit insurance
  - The friction created is important, but what problem does it limited liability (deposit insurance) solve?
- Motivations of the policymaker
  - Social planner maximizes output, via optimal risk and optimal lending
  - Policymaker minimizes weighted deviations between social planner’s optimal risk and social planner’s optimal output
  - Why the difference? What motivates the policymaker?

Role of the Policymaker: Regulation and Supervision

- In the model, "policymaker" stands in for two distinct but related real-world activities:

- Regulation: setting the rules under which banks operate
  - Who can own banks
  - Activities that banks can (and cannot) pursue
  - Interactions within a banking firm (bank holding company) and between banks/bank holding companies
  - Minimum liquidity and capital requirements

- Supervision: monitoring, oversight, enforcement
  - Ensuring compliance with regulation
  - Operating in a "safe and sound" manner, including risk management, risk measurement, internal controls, governance
  - Ratings, remediation, enforcement actions
  - Often confidential – e.g., ratings are not disclosed

Supervision

- Emerging literature on supervision as a distinct activity from regulation
  - Mostly empirical, seeking to identify impact of different degrees of supervisory attention/intensity
  - More intense supervision results in lower risk, (sometimes) less lending, but not lower profits or slower growth

- But little that discusses the theory of supervision
  - What is the goal of supervision?
  - How does it complement or substitute for regulation?
  - What is the appropriate degree of transparency?
  - What is the appropriate balance between flexibility and judgment vs. certainty and consistency?
    - How sure do supervisors need to be before taking action?
    - How predictable does supervision need to be for banks to operate effectively?
  - What's the right allocation of supervisory resources across different types of banks?

How Might the Model Incorporate These Issues?

- Introduce information gap about the manager's discount factor (degree of myopia)
  - Policymaker needs to invest to discover that information or to make the manager change
  - Would introduce resource issues in oversight
  - Another aspect of the government budget constraint?
- Introduce uncertainty about the social planner's optimum?
  - Requires policymaker investment to understand what the social planner would want?
- Could there be ways to examine questions about the certainty needed for supervisors to take action?
  - Risk that policymaker could reduce manager myopia too much?
  - Taking actions that aren't necessary or not acting when the social planner would have preferred that they do?
  - Relates back to question of what motivates the policymaker

Summary

- (Deceptively) Simple model with rich set of policy tools to explore
  - Interactions of the policy tools yield some important implications for competition, monetary policy, supervision, and regulation

- Role of the policymaker (proxy for regulation and supervision) is critical, including not just tools, but objectives and motivation

- Additional interpretations could address key issues in supervision that are underexplored in the literature