

Discussion of "A Macroeconomic Model of Banks' Systemic Risk Taking" by Abad, Martinez-Miera and Suarez

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The views expressed here are mine and do not necessarily represent Banco de México's or its board of governors' opinions.

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Summary: What This Paper Does

Main Question: How should we think about systemic risk taking in general equilibrium and what are the implications for regulation?

Approach:

- ▶ Dynamic general equilibrium model with banks and systemic (aggregate) shock
- ▶ Banks make decisions about exposure to systemic risk
- ▶ Combines micro-level banking incentives with macro outcomes

Comprehensive Policy Analysis:

- ▶ Optimal level of capital requirements
- ▶ With and without deposit insurance
- ▶ Gradualism in implementation
- ▶ Countercyclical adjustments

Calibration: US economy around 2008-2009 financial crisis

The Mechanism: Why Do Banks Take Systemic Risk?

Banks choose between two investment modes:

- ▶ **Non-systemic:** Returns 1 per unit invested (always)
- ▶ **Systemic:** Returns $(1 + \varepsilon)$ most of the time, but $(1 - \delta)$ when rare shock hits
- ▶ Systemic mode has *lower expected returns* but higher returns outside shock

Why systemic mode is attractive:

- ▶ Limited liability + leverage \Rightarrow upside gain ε captured, downside δ partly borne by others

Key Innovation - Dynamic Trade-off:

- ▶ Risk-shifting gains vs. **scarce-equity-preservation incentive**
- ▶ After systemic shock, equity become scarce and more valuable \Rightarrow banks want to have enough equity to survive shock
- ▶ General equilibrium effects: aggregate bank equity determines credit supply, intermediation margins and how scarce equity is

Key Strengths of the Paper

1. Micro Foundations Meet General Equilibrium

- ▶ Integrates bank-level risk decisions within a macroeconomic model
- ▶ Essential for understanding systemic risk
- ▶ Links individual banks' choices to system-wide outcomes, focusing on macroeconomic effects

2. Comprehensive Policy-Relevant Analysis

- ▶ Addresses multiple design questions regulators face
- ▶ Optimal levels, transition paths, cyclical adjustments
- ▶ Analyzes how deposit insurance and capital requirements interact

Key Strengths (continued)

3. Important Insights on Systemic Risk Dynamics

- ▶ Model captures that **systemic risk is endogenously higher after prolonged calm periods**
 - ▶ As bank equity accumulates during expansions, scarce-equity-preservation incentive weakens
 - ▶ Economy most vulnerable precisely when it appears strongest
- ▶ Optimal capital requirements are **positive even without deposit insurance**
 - ▶ Challenges view that capital requirements only correct deposit insurance distortions

Suggestions for Improvement

Overall Assessment: Strong paper with important contributions, but presentation could be clearer

Three areas for discussion:

1. Presentation and clarity of main contributions
2. Specific clarifications on mechanisms
3. Additional policy-relevant analysis

1. Clarity on Main Contributions

The paper does many things well, but the core innovation could be stated more explicitly:

- ▶ Is the main contribution adding general equilibrium to banking models of systemic risk?
- ▶ If so, what does GE allow us to learn that we couldn't without it?
 - ▶ My understanding: GE determines intermediation margins → shadow value of equity → scarce-equity-preservation incentive
 - ▶ But is GE essential for this mechanism? Could clarify
- ▶ Why is this important? For policy design, for explaining facts, or both?

Suggestion: Perhaps identify 3-4 core contributions explicitly upfront, distinguish from extensions/robustness checks

1. Presentation Strategy (continued)

Paper currently presents full model at once - makes it dense and hard to follow

Alternative approach: Introduce frictions gradually, showing how each moves away from first-best

Using efficient first-best as benchmark throughout could help readers understand:

- ▶ Which frictions create which distortions
- ▶ How capital requirements help correct specific inefficiencies

Note: This may require focusing on fewer results

2. Specific Clarifications

A. Pooling equilibrium with deposit insurance:

- ▶ I'm not certain I understand what "pooling" means here
- ▶ Does it mean all banks choose systemic risk?
- ▶ Or that both types operate at regulatory minimum capital?
- ▶ Some clarification in the text would help

B. Nature of systemic shock:

- ▶ If I understand correctly: shock reduces productivity of bank-dependent capital producing firms → less capital input → output decline
- ▶ This causal chain could be stated more explicitly upfront

2. Specific Clarifications (continued)

C. Systemic risk during "normal times":

- ▶ Paper states systemic risk increases during calm periods
- ▶ But doesn't the model have a steady state where things don't change? Clarifying would be helpful

3. Additional Policy-Relevant Analysis

Interesting counterfactual experiment:

- ▶ Question: What would happen if a 2008-magnitude shock hit today?
 - ▶ How much would output/credit fall?
 - ▶ How does this compare to what actually happened?
- ▶ This would make the policy analysis more concrete and forward-looking
- ▶ Could speak directly to "have post-2008 reforms made us safer?" It seems it has as we are now closer to the optimum

Summary of Discussion

Strengths:

- ▶ Important contribution combining micro banking with GE
- ▶ Comprehensive, policy-relevant analysis
- ▶ Novel insights on systemic risk dynamics

Suggestions:

- ▶ Clarify and prioritize main contributions
- ▶ Consider more gradual model presentation with first-best benchmark
- ▶ Clarify specific equilibrium concepts and mechanisms
- ▶ Add counterfactual with current capital levels

Bottom line: Strong paper that would benefit from sharper focus and clearer exposition