# Imperfect Banking Competition and the Propagation of Uncertainty Shocks

Tommaso Gasparini
Banque de France

Discussion by Rustam Jamilov
University of Oxford

April, 2025

# SUMMARY

- Gasparini (2025) studies the propagation of second-moment shocks in a macro-banking model with financial frictions and imperfect banking competition.

# SUMMARY

- Gasparini (2025) studies the propagation of second-moment shocks in a macro-banking model with financial frictions and imperfect banking competition.
- Conflict between the competition-stability and the concentration-stability views on banking consolidation.

# SUMMARY

- Gasparini (2025) studies the propagation of second-moment shocks in a macro-banking model with financial frictions and imperfect banking competition.
- Conflict between the competition-stability and the concentration-stability views on banking consolidation.
- Main result: the impact of second-moment shocks is more pronounced when the banking sector is more concentrated.

# SUMMARY

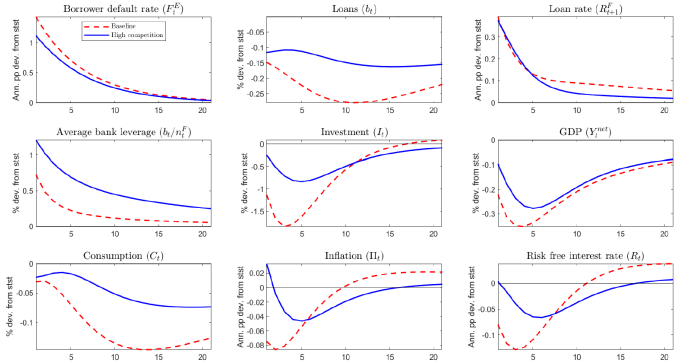
- Gasparini (2025) studies the propagation of second-moment shocks in a macro-banking model with financial frictions and imperfect banking competition.
- Conflict between the competition-stability and the concentration-stability views on banking consolidation.
- Main result: the impact of second-moment shocks is more pronounced when the banking sector is more concentrated.
- Quantitative corroboration of the competition-stability view.

# SUMMARY

- Gasparini (2025) studies the propagation of second-moment shocks in a macro-banking model with financial frictions and imperfect banking competition.
- Conflict between the competition-stability and the concentration-stability views on banking consolidation.
- Main result: the impact of second-moment shocks is more pronounced when the banking sector is more concentrated.
- Quantitative corroboration of the competition-stability view.
- Empirical evidence using country-level local projections is offered to support the main finding.

# MAIN RESULT

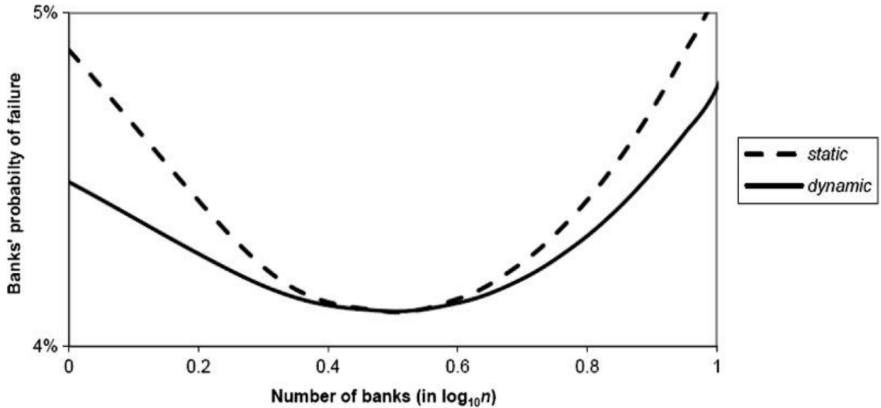
**Figure 3:** Effects of recent fall in banking competition.




Notes. The graph compares the impulse responses of the baseline model with the model with higher competition.

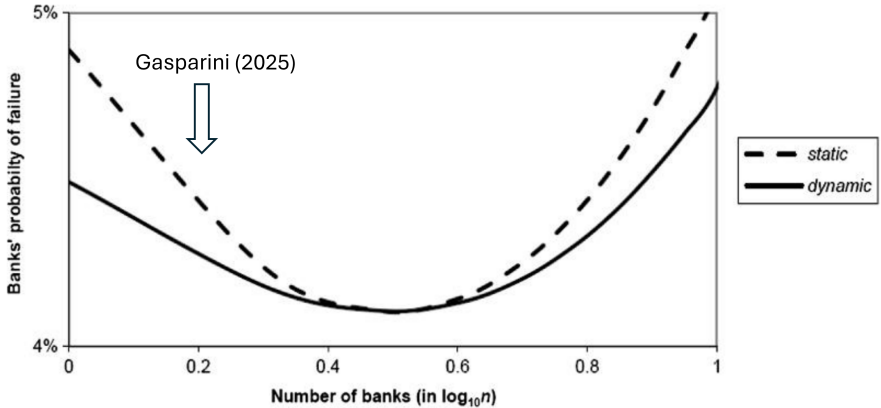
- Key figure. Would be also useful to show cumulative impulse responses, esp. for $\pi_t$.

# Competition-Stability Trade-Off




Source: *Martinez-Miera and Repullo (2010)*

# Competition-Stability Trade-Off




Source: *Martinez-Miera and Repullo (2010)*

# Competition-Stability Trade-off

- Concentration-stability view: high competition -> high risk-taking (Allen and Gale 2000, 2004; Repullo 2004, Beck et al., 2006).

# Competition-Stability Trade-off

- Concentration-stability view: high competition -> high risk-taking (Allen and Gale 2000, 2004; Repullo 2004, Beck et al., 2006).
- Competition-stability view: high competition -> low default risk (Boyd and De Nicoló 2005).

# Competition-Stability Trade-off

- Concentration-stability view: high competition -> high risk-taking (Allen and Gale 2000, 2004; Repullo 2004, Beck et al., 2006).
- Competition-stability view: high competition -> low default risk (Boyd and De Nicoló 2005).
- Unified view: U-shaped relationship between competition and risk-taking (Martinez-Miera and Repullo 2010). Gasparini (2025) is in the competition-stability camp.

# Competition-Stability Trade-off

- Concentration-stability view: high competition -> high risk-taking (Allen and Gale 2000, 2004; Repullo 2004, Beck et al., 2006).
- Competition-stability view: high competition -> low default risk (Boyd and De Nicoló 2005).
- Unified view: U-shaped relationship between competition and risk-taking (Martinez-Miera and Repullo 2010). Gasparini (2025) is in the competition-stability camp.
- Competition in what? In the model, the friction is on the asset side. However, there is also deposit market power.

# Competition-Stability Trade-off

- Concentration-stability view: high competition -> high risk-taking (Allen and Gale 2000, 2004; Repullo 2004, Beck et al., 2006).
- Competition-stability view: high competition -> low default risk (Boyd and De Nicoló 2005).
- Unified view: U-shaped relationship between competition and risk-taking (Martinez-Miera and Repullo 2010). Gasparini (2025) is in the competition-stability camp.
- Competition in what? In the model, the friction is on the asset side. However, there is also deposit market power.
- Low competition -> amplification? Discussion could be more in terms of pass-throughs, not levels.

# Second-Moment Shocks

- Idiosyncratic productivity shock faced by firms:

$$\omega_t = \rho_\omega \omega_{t-1} + \sigma_t \xi_t \,, \quad \text{with} \quad \rho_\omega = 0$$
$$\log \xi_t = \rho_\xi \log \xi_{t-1} + \epsilon_t$$

# Second-Moment Shocks

- Idiosyncratic productivity shock faced by firms:

$$\omega_t = \rho_\omega \omega_{t-1} + \sigma_t \xi_t \,, \quad \text{with} \quad \rho_\omega = 0$$
$$\log \xi_t = \rho_\xi \log \xi_{t-1} + \epsilon_t$$

- Uncertainty? Or stochastic volatility (Fernández-Villaverde et al. AER, 2011; JoE 2005)? Uncertainty implies different mechanisms - option values (of default?). Stochastic vol. interpretation is more straightforward here.

# Second-Moment Shocks

- Uncertainty shocks are demand shocks (Leduc and Liu 2016). Model impulse responses are consistent with this. Following uncertainty spikes, prices and quantities fall.

# Second-Moment Shocks

- Uncertainty shocks are demand shocks (Leduc and Liu 2016). Model impulse responses are consistent with this. Following uncertainty spikes, prices and quantities fall.

- In the model, uncertainty = dispersion of idiosyncratic firm productivity shocks. But in practice, uncertainty of what? Fundamental risks? Regulation?

# Second-Moment Shocks

- Uncertainty shocks are demand shocks (Leduc and Liu 2016). Model impulse responses are consistent with this. Following uncertainty spikes, prices and quantities fall.
- In the model, uncertainty = dispersion of idiosyncratic firm productivity shocks. But in practice, uncertainty of what? Fundamental risks? Regulation?
- An uncertainty/volatility increase does not necessarily mean that expected value of returns will fall. Need asymmetry, i.e. left skewness? Otherwise, high volatility may have positive net effects.

# Model

- Firm problem ends up being symmetric (standard).

# Model

- Firm problem ends up being symmetric (standard).
- In the banking sector, $\gamma_i$ (intermediation cost) and $\chi_i$ (dividend payout ratio) are the sources of heterogeneity. Critical bit.

# MODEL

- Firm problem ends up being symmetric (standard).
- In the banking sector, $\gamma_i$ (intermediation cost) and $\chi_i$ (dividend payout ratio) are the sources of heterogeneity. Critical bit.
- Discuss more how $\{\gamma_i, \chi_i\}$ are calibrated. Also, are these first-order margins in practice?

# Model

- Firm problem ends up being symmetric (standard).
- In the banking sector, $\gamma_i$ (intermediation cost) and $\chi_i$ (dividend payout ratio) are the sources of heterogeneity. Critical bit.
- Discuss more how $\{\gamma_i, \chi_i\}$ are calibrated. Also, are these first-order margins in practice?
- Why both default risk and collateral constraint for entrepreneurs? Is firm leverage not already constrained by default risk that is priced into borrowing rates?

# Empirics

- Novel extension of Beck et al. (2006), who use 69 countries and show that crises are less likely in high-concentration economies, to second-moment shocks.

# Empirics

- Novel extension of Beck et al. (2006), who use 69 countries and show that crises are less likely in high-concentration economies, to second-moment shocks.
- Gasparini's dependent variable is real GDP and the independent variable is an instrumented second-moment shock.

# Empirics

- Novel extension of Beck et al. (2006), who use 69 countries and show that crises are less likely in high-concentration economies, to second-moment shocks.
- Gasparini's dependent variable is real GDP and the independent variable is an instrumented second-moment shock.
- First-pass empirical support for the theory.

# Empirics

- Novel extension of Beck et al. (2006), who use 69 countries and show that crises are less likely in high-concentration economies, to second-moment shocks.
- Gasparini's dependent variable is real GDP and the independent variable is an instrumented second-moment shock.
- First-pass empirical support for the theory.
- The disaster instrument may not satisfy the exclusion restriction.

# Relation to Other Papers

- Jamilov and Monacelli (2025) develop a quantitative macro-banking framework with incomplete markets, ex-ante and ex-post bank heterogeneity, and aggregate uncertainty.

# Relation to Other Papers

- Jamilov and Monacelli (2025) develop a quantitative macro-banking framework with incomplete markets, ex-ante and ex-post bank heterogeneity, and aggregate uncertainty.

- Among other experiments, they study how counter-cyclical bank return risk and deposit market power affect aggregate dynamics.

# Relation to Other Papers

- Jamilov and Monacelli (2025) develop a quantitative macro-banking framework with incomplete markets, ex-ante and ex-post bank heterogeneity, and aggregate uncertainty.
- Among other experiments, they study how counter-cyclical bank return risk and deposit market power affect aggregate dynamics.
- They find that counter-cyclical risk amplifies but imperfect deposit competition dampen aggregate fluctuations.

# Relation to Other Papers

- Jamilov and Monacelli (2025) develop a quantitative macro-banking framework with incomplete markets, ex-ante and ex-post bank heterogeneity, and aggregate uncertainty.
- Among other experiments, they study how counter-cyclical bank return risk and deposit market power affect aggregate dynamics.
- They find that counter-cyclical risk amplifies but imperfect deposit competition dampen aggregate fluctuations.
- Gasparini (2025) studies how imperfect competition (on the asset side) affects the pass-through of second-moment shocks.

# Summary

- Very nice paper and contribution to the macro-banking literature.
- Focus on the second moment is novel.
- Interpretation of what this second moment is exactly can be clarified.