#### The Bank Lending Channel Across Time and Space

D. Corbae and P. D'Erasmo

Discussion by David Moreno Banco Central de Chile

XXV Annual Conference of the Central Bank of Chile: "Heterogeneity in Macroeconomics: Implications for Monetary Policy"

> Banco Central de Chile 21-22 November 2022

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## Overview I

- Corbae and D'Erasmo have consolidated the literature on the banking industry's quantitative models
  - They gather standard features from previous theoretical and empirical work
  - In addition, they include bank heterogeneity
  - These models help understand better the banking industry and answer relevant policy questions
  - E.g. Basel III capital regulations, the Riegle-Neal Act, and the stability-competition trade-off
- The present paper approaches geographic diversification effects on the bank lending channel
  - Bank distribution matters for this channel of monetary policy (MP)
  - MP expansion leads to higher credit provision in small than large banks (Corbae and D'Erasmo 2020, 2021)
  - Risk-taking and bank market structure changes during the cycle (Corbae and Levine 2018)
  - What happens when banks are allowed to expand across regions?

## Overview II

- Method: DSGE model of the banking sector based on Corbae and D'Erasmo (2020)
  - Heterogeneous banks with endogenous bank exit and entry
  - Banks are subject to idiosyncratic funding shocks
  - · Cournot competition at the regional level on loan markets
  - Banks may remain regional or invest in becoming regional or national
  - Funding shocks are less volatile for larger banks
  - Competitive non-banks also lend to firms
  - National Z and regional productivity shocks  $z_j, j \in \{e, w\}$

### Comments

1 Puzzling finding: Geographic diversification leads to increased sensitivity to MP

- This is despite having larger banks. What may be the mechanisms behind it?
- Corbae and Levine (2018) shows competition increases sensitivity to MP
- Does diversification induce greater competition inside states, at least in the short term?
- Some banks enter other states and increase competition
- Could short-term effects be different than long-term effects?
- Ould monetary policy effects be symmetrical in this setting?
  - Does geographic diversification make banks more sensitive to MP in expansions than in contractions?
  - Expansion may lead to bank entry, more competition and increased sensitivity
  - Contractions, to bank exit, lower competition and reduced sensitivity
- **3** Monetary policy contraction is modelled as higher external funding costs for liabilities ( $a_{\theta} < 0$ )
  - Might changing  $\overline{r}$  for all  $a_{\theta} \in \mathbb{R}$  make a difference?

#### **Final Remarks**

- This paper explores a different angle of the bank lending channel of MP: geographic diversification
- Higher geographic diversification leads to greater concentration, higher stability, and increased sensitivity to MP
- Future work could tackle the internationalisation of domestic banks (Buch and Goldberg 2022)
  - This has become relevant during the last decades
  - What would be the implications for the financial and monetary policies?
- Congratulations on your work!

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# References I



Corbae, Dean, and Pablo D'Erasmo. 2020. "Rising bank concentration." Journal of Economic Dynamics and Control 115:103877.

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