# Discussion of "Bank market power and credit allocation"

Felipe Brugués & Rebecca De Simone

Augusto Orellana



October 7<sup>th</sup>, 2025

#### Plan

- Overview
- What about the demand side?
- Instrumental variables
- Control function
- 4 Additional comments

#### 1.1 Overview

#### Bank market power creates distortions

- Financial stability (risks of bank failure, deposit runs)
- Policy transmission (monetary, tax)
- Credit access

#### 1.1 Overview

#### Bank market power creates distortions

- Financial stability (risks of bank failure, deposit runs)
- Policy transmission (monetary, tax)
- Credit access

#### Several regulations target bank market power

- Interstate Branching Reform Riegle-Neal Act (1994)
- DOJ's 2023 Merger Guidelines (Banking Addendum)
- Dodd–Frank Act (2010) consumer-facing provisions
- Open Banking / Data Access CFPB §1033 rule (2024)

#### 1.1 Overview

#### Bank market power creates distortions

- Financial stability (risks of bank failure, deposit runs)
- Policy transmission (monetary, tax)
- Credit access

## Several regulations target bank market power

```
    Interstate Branching Reform – Riegle-Neal Act (1994)
    DOJ's 2023 Merger Guidelines (Banking Addendum)
    Dodd–Frank Act (2010) consumer-facing provisions
    Open Banking / Data Access CFPB §1033 rule (2024)
```

#### Regulations target different sources of bank power

• How does each source affect commercial lending?

# 1.2 This paper:

- Decomposes the sources of market power: supply, demand, and risk
- Examines the effects of supply-side on credit allocation, firm growth, and aggregate welfare

# 1.2 This paper:

- Decomposes the sources of market power: supply, demand, and risk
- Examines the effects of supply-side on credit allocation, firm growth, and aggregate welfare

#### Follow-up of Brugués and De Simone, 2024 (R&R JPE, congrats!)

- Ecuador's banking structure reflects limited competition
  - ► Incomplete pass-through of a loan tax reform in Ecuador, consistent with a joint-maximization behavior of banks
  - Changes in prices, marginal costs, and markups of moving to competition

# 1.2 This paper:

- Decomposes the sources of market power: supply, demand, and risk
- Examines the effects of supply-side on credit allocation, firm growth, and aggregate welfare

#### Follow-up of Brugués and De Simone, 2024 (R&R JPE, congrats!)

- Ecuador's banking structure reflects limited competition
  - ► Incomplete pass-through of a loan tax reform in Ecuador, consistent with a joint-maximization behavior of banks
  - Changes in prices, marginal costs, and markups of moving to competition

#### Main results:

- Changes in loan use, and the welfare of moving to competition
  - ▶ Heterogeneous effects by firm size and age
- Positive effect of more loan use on firm productivity
- Positive effects of moving to competition on aggregate efficiency

#### 2. What about the demand side?

- How large are the distortions from the demand-side?
  - ▶ Demand side accounts for 70% of markups (market power)
  - Understanding demand-side may be more relevant than supply-side

Panel C: Markups		
2.43	2.30	
6.38	4.79	
4.56	2.43	
25.46	19.18	
70.27	72.62	
4.26	0.33	
	2.43 6.38 4.56 25.46 70.27	2.43 2.30 6.38 4.79 4.56 2.43 25.46 19.18 70.27 72.62

#### 2. What about the demand side?

- How large are the distortions from the demand-side?
  - ▶ Demand side accounts for 70% of markups (market power)
  - Understanding demand-side may be more relevant than supply-side

	Panel C: Markups	
Markup - Not Accounting for Conduct	2.43	2.30
Markup - Accounting for Conduct	6.38	4.79
Markup - Move to Bertrand-Nash	4.56	2.43
% Share of Markup due to Conduct	25.46	19.18
% Share of Markup due to Preferences	70.27	72.62
% Share of Markup due to Risk	4.26	0.33

- ② Do demand-side constraints amplify or dampen the effects of supply-side power?
  - Firms face limited outside options, switching costs, and info frictions

#### 2. What about the demand side?

- How large are the distortions from the demand-side?
  - ▶ Demand side accounts for 70% of markups (market power)
  - Understanding demand-side may be more relevant than supply-side

Panel C: Markups	
2.43	2.30
6.38	4.79
4.56	2.43
25.46	19.18
70.27	72.62
4.26	0.33
	2.43 6.38 4.56 25.46 70.27

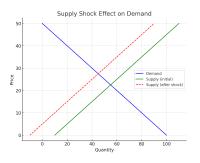
- ② Do demand-side constraints amplify or dampen the effects of supply-side power?
  - ► Firms face limited outside options, switching costs, and info frictions
  - ▶ Bank market power can moderate the welfare losses caused by asymmetric information (Crawford et al. 2018)

$$L_{ispt} = \alpha r_{ispt} + \gamma_t + \gamma_s + \gamma_p + \epsilon_{ispt}$$
 (1)

$$L_{ispt} = \alpha r_{ispt} + \gamma_t + \gamma_s + \gamma_p + \epsilon_{ispt}$$
 (1)

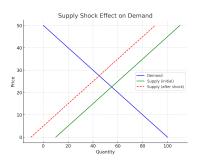


$$L_{ispt} = \alpha r_{ispt} + \gamma_t + \gamma_s + \gamma_p + \epsilon_{ispt}$$
 (1)



• **Identification:** Instruments should capture bank-level marginal cost variation that is orthogonal to individual demand

$$L_{ispt} = \alpha r_{ispt} + \gamma_t + \gamma_s + \gamma_p + \epsilon_{ispt}$$
 (1)



- **Identification:** Instruments should capture bank-level marginal cost variation that is orthogonal to individual demand
- Proposed instruments: Average prices of matched banks in other provinces
  - Commercial credit, mortgages, micro-lending
  - Delinquencies in non-commercial credit products

• Why could the exclusion restriction be violated?

- Why could the exclusion restriction be violated?
  - Correlated demand trends across provinces
    - $\bigstar$  Prices in other provinces reflect not only  $\Delta \text{MC}$

- Why could the exclusion restriction be violated?
  - Correlated demand trends across provinces
    - ★ Prices in other provinces reflect not only ∆MC
  - Firms can borrow through subsidiaries in other provinces
    - ★ Prices in other provinces can reflect firm's fundamentals

- Why could the exclusion restriction be violated?
  - Correlated demand trends across provinces
    - ★ Prices in other provinces reflect not only ∆MC
  - Firms can borrow through subsidiaries in other provinces
    - ★ Prices in other provinces can reflect firm's fundamentals
  - Indirect effects through household default rates
    - $\star$  Household wealth  $\to$  product DD  $\to$  investing  $\to$  credit DD

#### • Why could the exclusion restriction be violated?

- Correlated demand trends across provinces
  - ★ Prices in other provinces reflect not only ∆MC
- Firms can borrow through subsidiaries in other provinces
  - ★ Prices in other provinces can reflect firm's fundamentals
- Indirect effects through household default rates
  - **★** Household wealth  $\rightarrow$  product DD  $\rightarrow$  investing  $\rightarrow$  credit DD
- Expectations about economic conditions
  - Prices in other provinces can reflect overall economic conditions (not only macro, cross-provinces product networks)

#### • Why could the exclusion restriction be violated?

- Correlated demand trends across provinces
  - ★ Prices in other provinces reflect not only ∆MC
- Firms can borrow through subsidiaries in other provinces
  - ★ Prices in other provinces can reflect firm's fundamentals
- Indirect effects through household default rates
  - **★** Household wealth  $\rightarrow$  product DD  $\rightarrow$  investing  $\rightarrow$  credit DD
- Expectations about economic conditions
  - Prices in other provinces can reflect overall economic conditions (not only macro, cross-provinces product networks)

#### Suggestions

- Placebo test: use non-matched banks in other provinces
- Young's test for IV (Young, 2022)
- Report information about compliers (relevant for external validity)

Control function approach: Residuals of the FS are included in the SS

$$x = \rho z + u$$

$$y = \alpha x + \hat{u} + e$$
(2)

Control function approach: Residuals of the FS are included in the SS

$$x = \rho z + u$$

$$y = \alpha x + \hat{u} + e$$
(2)

In the paper: 2SLS instead of control function

$$\begin{aligned}
\hat{x} &= \hat{\rho}z\\ 
y &= \alpha \hat{x} + e
\end{aligned} \tag{3}$$

Control function approach: Residuals of the FS are included in the SS

$$x = \rho z + u$$
  

$$y = \alpha x + \hat{u} + e$$
(2)

In the paper: 2SLS instead of control function

$$\hat{x} = \hat{\rho}z 
y = \alpha \hat{x} + e$$
(3)

#### What is the issue?

• In CF, if  $cov(x, e) \neq 0$ ,  $\hat{u}$  controls for endogeneity

**Control function approach:** Residuals of the FS are included in the SS

$$x = \rho z + u$$
  

$$y = \alpha x + \hat{u} + e$$
(2)

**In the paper:** 2SLS instead of control function

$$\hat{x} = \hat{\rho}z 
y = \alpha \hat{x} + e$$
(3)

#### What is the issue?

- In CF, if  $cov(x, e) \neq 0$ ,  $\hat{u}$  controls for endogeneity
- 2SLS not valid if instruments do not satisfy the exclusion restriction

**Control function approach:** Residuals of the FS are included in the SS

$$x = \rho z + u$$

$$y = \alpha x + \hat{u} + e$$
(2)

In the paper: 2SLS instead of control function

$$\hat{x} = \hat{\rho}z 
y = \alpha \hat{x} + e$$
(3)

#### What is the issue?

- In CF, if  $cov(x, e) \neq 0$ ,  $\hat{u}$  controls for endogeneity
- 2SLS not valid if instruments do not satisfy the exclusion restriction
- If the exclusion restriction holds, why not just use IV?
  - $ightharpoonup \alpha$  should be interpreted in terms of  $\hat{x}$  instead of x
  - ▶ It loses "natural" interpretation

#### 5.1 Additional comments

Two-step causality:

$$r = \rho Z + u$$
 $ln(credit) = \alpha r + e$ 
 $TFP = \beta ln(credit) + v$ 
(4)

- Need not only  $cov(\hat{r}, e) = 0$ , but also  $cov(ln(\hat{credit}), v) = 0$
- ightharpoonup Z  $\perp$  e and Z  $\perp$  v
- Clarify how the decomposition of markups is made

#### 5.1 Additional comments

Two-step causality:

$$r = \rho Z + u$$
 $ln(credit) = \alpha r + e$ 
 $TFP = \beta ln(credit) + v$ 
(4)

- Need not only  $cov(\hat{r}, e) = 0$ , but also  $cov(ln(\hat{credit}), v) = 0$
- ightharpoonup Z  $\perp$  e and Z  $\perp$  v
- Clarify how the decomposition of markups is made

Overall: Interesting paper, natural extension of B&DS, 2024

Best of Luck with the Next Draft!