Monetary Policy in Focus:

Key Messages

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Monetary Policy Dilemma?

1. Ultimate goal of monetary policy: maintain growth along optimal long-term path

Standard tradeoffs/dual mandates:

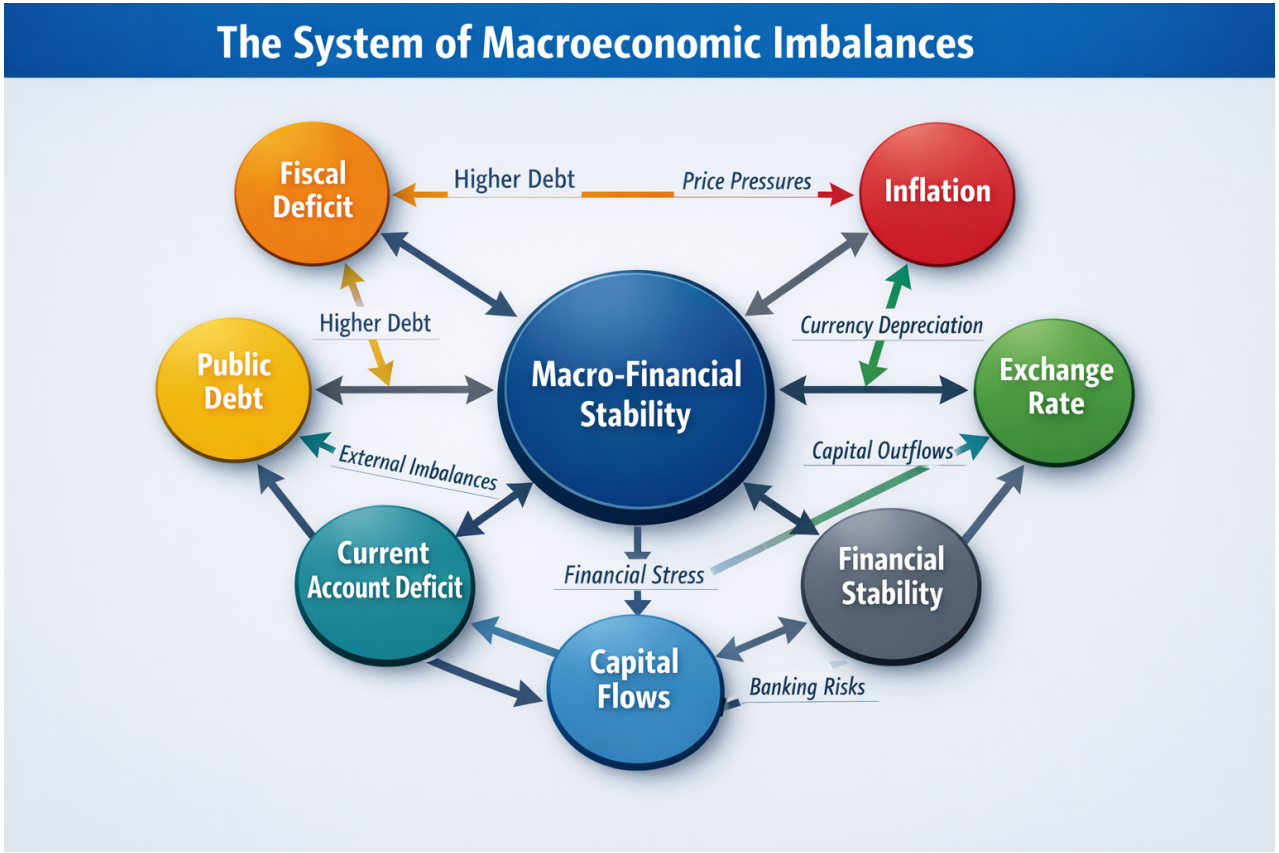
- **Inflation**
  - Highly regressive tax that disproportionately harms low-income households
  - Tax on future growth (countries with price stability grow more)
- **Output**
  - Connects to the Labor Market (Okun's Law)
  - Importance of countercyclical policies

But tradeoff is only short-term; once dynamics are considered, it disappears

- $\uparrow Y$, $\uparrow \pi$ today $\rightarrow \downarrow Y$ tomorrow^{onwards}
- $\downarrow Y$, $\uparrow \pi$ today $\rightarrow \uparrow Y$ tomorrow^{onwards}

Correlated Imbalances

2. Macroeconomic Imbalances are inter-connected

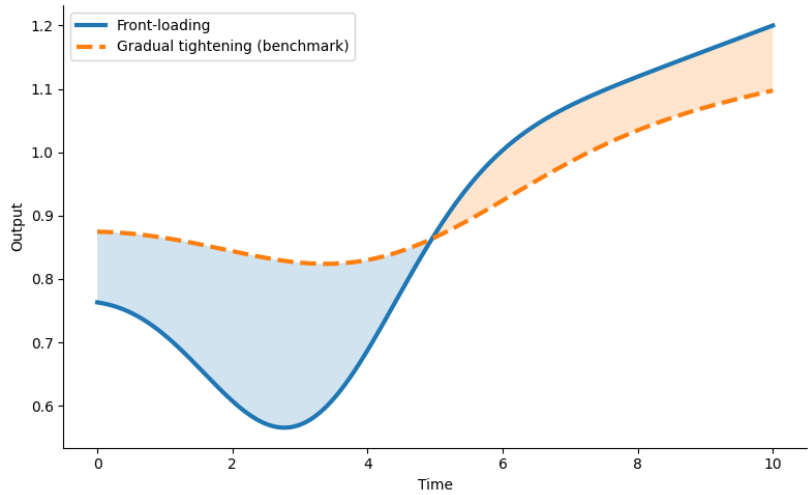


The Price of Impatience

3 Short-Term Impatience = Long-Term Costs

Unsustainable & hasty policy rate cuts can have adverse effects:

- May trigger increases in long-term rates (bull steepener).
- Can result in a higher terminal rate.
  - Speed of convergence matters, especially when credibility is at stake.
- Front-loading (during hikes) or Back-loading (during cuts) pays welfare dividends
  - Think in terms of Losses $\mathcal{L} = \sum_t \beta^t (\hat{y}_t^2 + \hat{\pi}_t^2)$



Central Bank Credibility

4. Stability Requires Credibility

CB credibility increases effectiveness by 10–70 % (Cepeda, Taboada, and Villamizar, 2025).

- Clear communication is critical (e.g., avoid ambiguous frameworks – *e.g., flexible form of average inflation targeting*)
- Forward guidance & hard-stop signaling tools (e.g., interest rate corridors) may undermine policy effectiveness if not credibly supported—particularly under heightened uncertainty

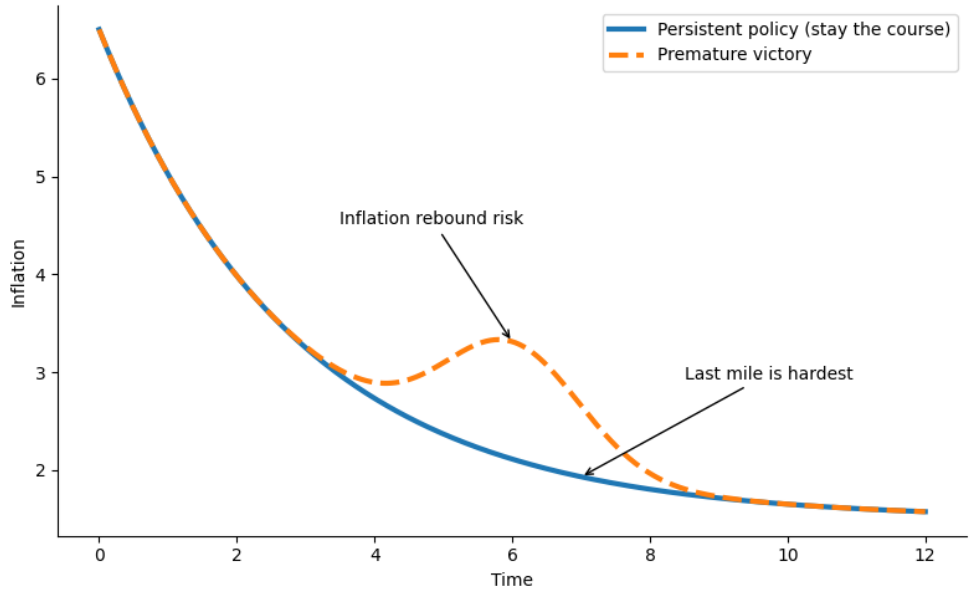
Monetary Policy is all about the time-varying Sacrifice Ratio (SR)

- Steeper Phillips Curve (CB cred, anchored exp) $\rightarrow$ less SR

Premature Victories

5. "If a (premature) victory is told in detail, one can no longer distinguish it from defeat." – Jean-Paul Sartre

- Last mile is always the hardest (decreasing marginal returns).
- Risk of inflationary rebounds (premature victory).



The Slow Transmission

6. Monetary policy operates with significant lags

- Effects typically begin after 9–18 months and can persist for over a decade (e.g., 12 years according to Jordà, Singh, and Taylor, 2024).
- Transmission is asymmetric: tightening tends to have stronger and more persistent effects
- Multiple factors influence transmission strength: usury ceilings, risk premia, macroprudential measures, balance sheet composition, credit risk, among others
- Banks, firms, and households respond heterogeneously to changes in the policy rate
  - e.g., banks with a strong deposit franchise are less sensitive to policy rate

Fiscal Preamble

- The pandemic shock had long-lasting (perhaps permanent) effects
  - Key indicators diverging from pre-pandemic trends in most countries: sovereign debt ($\uparrow$), neutral rates ($\uparrow$), potential output ($\downarrow$).

- Fiscal deterioration has become one of the most pressing policy concerns. Countries with structurally expansionary fiscal stances are less able to cope with risks during periods of heightened uncertainty, often forcing monetary policy to overcompensate.

Fiscal Awareness Is Not Fiscal Dependence

7. Understanding Fiscal Spillovers $\neq$ Fiscal Dependence

- Monetary Policy Lives Beyond Presidential Terms
  - Central Banks Think Long-Term, Governments think Short-Term.
- Central bank independence matters most when it is criticized.
- Independence exists precisely for moments of disagreement.

Fiscal burden

8. Marginal cost of acquiring fiscal debt has risen

- Differentially higher for emerging and frontier markets.
  - 🇨🇴 pays 5 % of GDP a year only on debt interests ($\approx$ 4 tax reforms)
  - Fiscal debt $\uparrow$ 15pp of GDP due to pandemic. From 2023-26 $\uparrow$ 10pp.

- Since the 2000's, MP has been countercyclical. Not the case for Fiscal policy, which seems to be always switched to max (a-cyclical).
  - 🇺🇸 2020-21: fiscal stimulus due to pandemic was \$5t USD (reasonable response would have been \$1t).
  - 2025-28: Tax cuts of \$5t $-$ spending cuts of \$2.5t $\rightarrow$ huge stimulus![1]

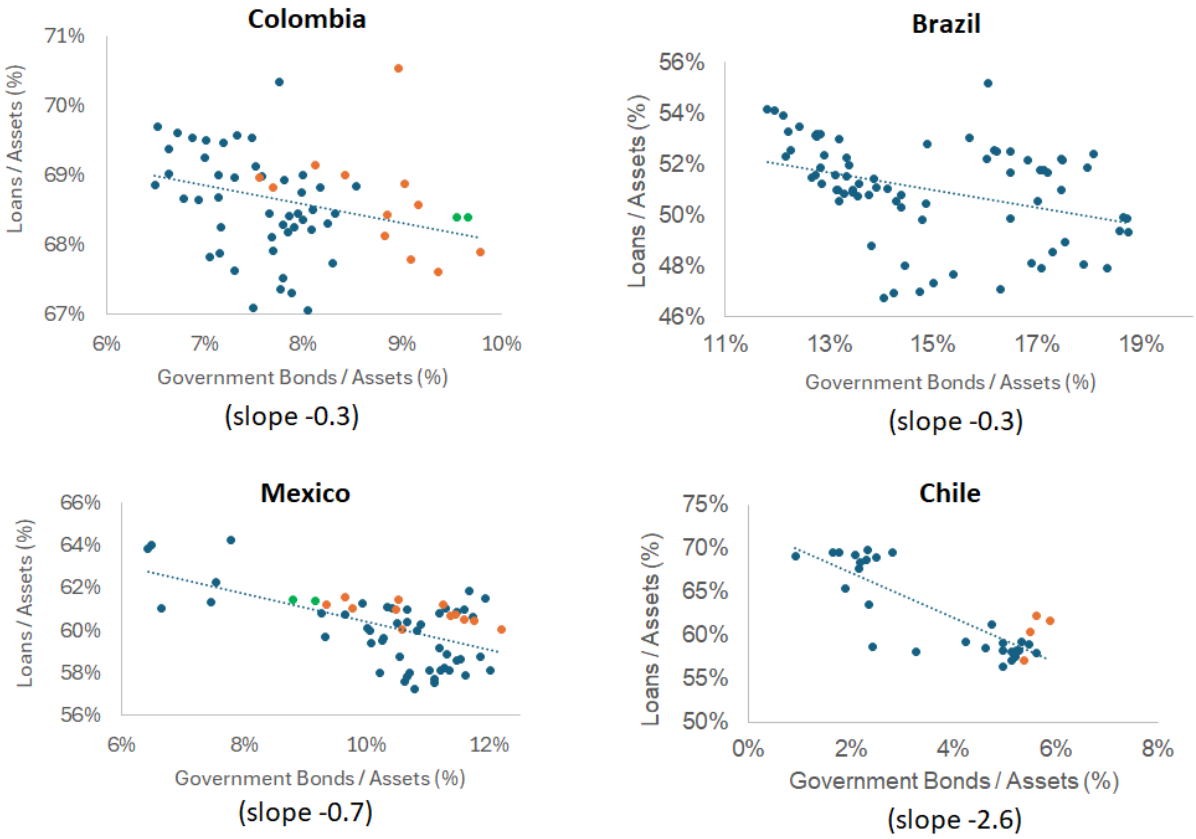
What are foreign and domestic investors looking for?

Credible fiscal anchors & *Unwavering commitment to fiscal restraint*

[1] Projections in US fiscal deficit increase vary, from \$5.8 - \$10.4t over a 10-year period (Penn Wharton Budget Model).

Crowding Out Investment

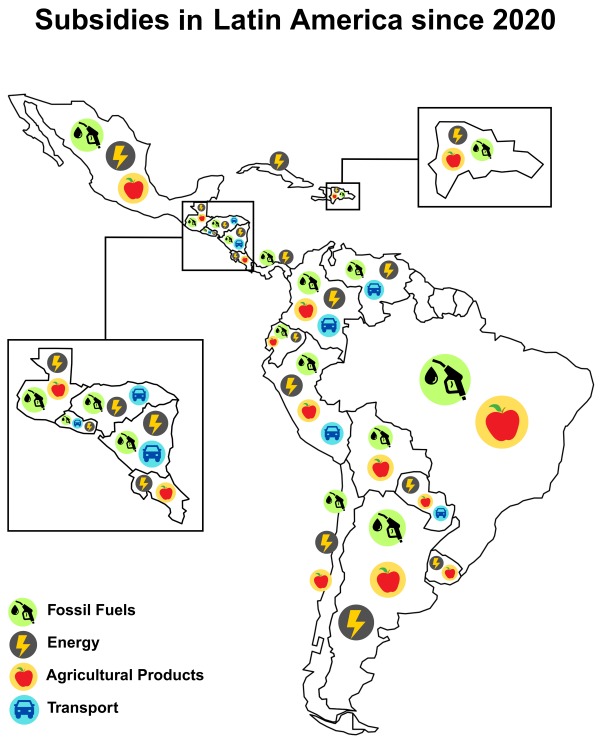
9. Elevated fiscal spending may reduce firm investment by crowding-out private sector lending via the banking channel.



Based on official CB data. Motivated by ▸ Onder, Restrepo, Ruiz, Villamizar (AEJ-Macro 2024).

Bad Fiscal issues

10. Fiscal measures aimed at reducing inflation, while often popular, can prove counterproductive.



"Nothing is so permanent as a temporary government program" (Friedman 1984)

Populist Fiscal issues

11. Other fiscal measures risk being purely populist.

- Excessive Minimum Wage Increases
- Price-targeted (rather than income-targeted) policies
  - Fuel subsidies
  - Electricity price freezes during inflation episodes
  - Transport subsidies
  - Across-the-board VAT reductions
  - Payroll tax holidays
  - Temporary income tax rebates before elections
- Price Controls on firms/sectors/exports

Summing up the Fiscal Channel

12. Persistent, unfunded fiscal imbalances surface as inflation, shifting burden to Households and firms

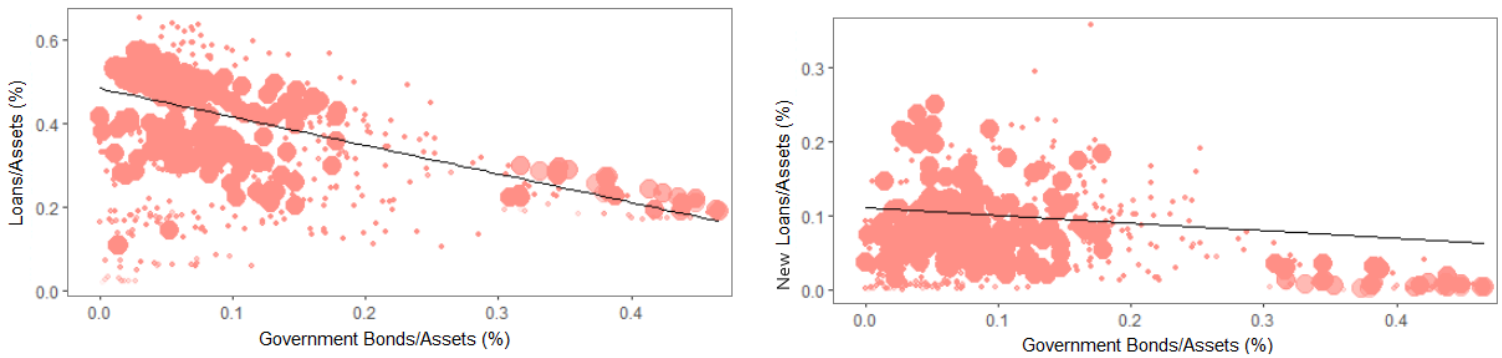
- Short term surge in demand for non-tradable goods and services (while rigid short-term supply).
- price indexation processes (Education, Transportation, utilities).
- Higher inflation expectations.
  - Currency depreciation due to higher country risk.
  - Fiscal deterioration erodes monetary tightening by pushing up the neutral rate.
- No free lunch: Fiscal theory of price levels -Woodford, Sims, Cochrane, Barro, etc.[2]

[2] Prices adjust so that real value of gov debt equals present discounted value of expected future primary surpluses.

Appendix

AEJ paper explained

- We postulate the crowding-out effect as a function of public debt
- We propose a firm-based measure of financial exposure: share of primary dealer creditors of each firm over total creditors
- We explore real sector effects when banks substitute out loans for securities



Left panel shows the stock of loans in its y-axis while the right panel displays the amount of new loans, both as a share of total assets. The circle sizes are weighted according to bank size.

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Identification

1. Exogeneity: Primary Dealers are required to participate in Government auctions and hold a percentage of sovereign debt.
   - Similar to Khwaja and Mian (2008), we explore multiple banking relationships for each firm
   - Firm-time, and bank FE allows to control for credit demand
   - Bank-level variables (excess reserves, provisions, total assets, equity, NP Loans, profits) allow to control for supply factors
2. Regression Discontinuity Design
   - Being PD
   - Winning auction within PDs

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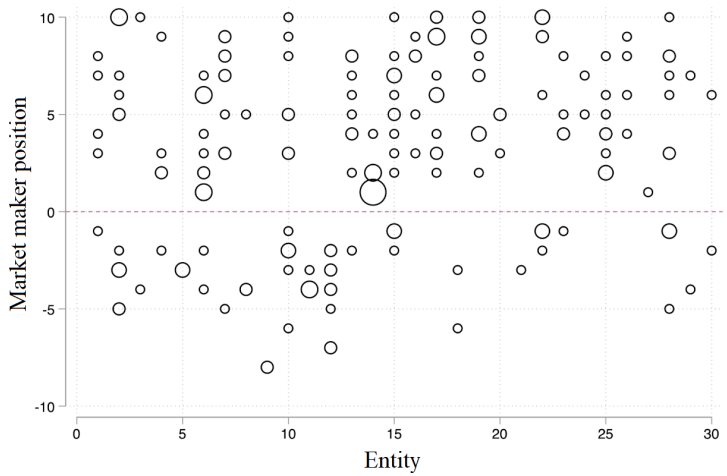
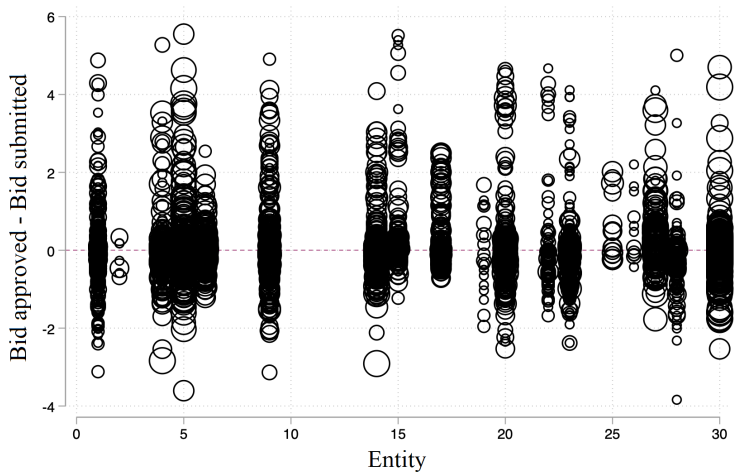
Empirical Model

$$\arg\min_{\theta} \sum_{ij=1}^{I\times J} \sum_{t=0}^{T} \left[Loan_{i,j,t+1} - \alpha - \theta \hat{D}_{j,t} - b\left(X_{j,t} - r\right) - \tau \hat{D}_{j,t}\left(X_{j,t} - r\right) \right]^2 K\left(\frac{X_{j,t} - r}{k}\right)$$

Where $\hat{D}_{j,t} = \mathbf{1}\left\{X_{j,t} \geq r\right.$





The size of each bubble represents the frequency in which the entity obtained a specific value of the running variable.

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Regression Discontinuity Design

Cuadro 1: Localized effect of being a Primary Dealer and winning an auction

	—— Primary Dealer ——		—— Winner of Auction ——	
	$\hat{D}_{it}$	$Bonds * \hat{D}_{it}$	$\hat{D}_{it}$	$Bonds * \hat{D}_{it}$
Loans				
Optimal Bandwidth	-0.108***	-0.024***	-0.193***	-0.837***
	(0.019)	(0.002)	(0.010)	(0.058)
2x Optimal Bandwidth	-0.851***	-0.031***	-0.219***	-1.617***
	(0.031)	(0.002)	(0.007)	(0.043)
Placebo Test				
Lag Loans				
Optimal Bandwidth	-0.013	0.004	0.097	-1.078
	(0.063)	(0.010)	(0.083)	(1.578)
2x Optimal Bandwidth	0.010	0.004	0.083	-0.195
	(0.050)	(0.007)	(0.063)	(0.662)
Observations	54,139	53,170	185,716	181,466

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Firm Heterogeneity

	(1)	(2)	(3)	(4)	(5)	(6)
		Interaction effect with *Bonds*				
Periods	*Bonds*	*Age*	*Employment*	*Risk*	*Size*	*Profits*
1	-0.17	0.031***	0.025***	0.006	0.014**	0.016**
	(0.17)	(0.009)	(0.006)	(0.005)	(0.006)	(0.006)
2	-0.27	0.012	0.006	-0.002	0.013**	0.012
	(0.18)	(0.011)	(0.004)	(0.006)	(0.005)	(0.007)
3	-0.29*	0.029**	0.007	-0.005	0.015**	0.013**
	(0.16)	(0.011)	(0.008)	(0.004)	(0.005)	(0.005)
4	-0.34**	0.023**	0.010	0.001	0.015***	0.014***
	(0.14)	(0.011)	(0.008)	(0.006)	(0.004)	(0.005)
5	-0.31*	0.014	0.001	-0.004	0.009	0.007
	(0.16)	(0.009)	(0.005)	(0.010)	(0.005)	(0.005)
6	-0.41***	0.025*	0.019**	-0.008	0.011*	0.008
	(0.13)	(0.012)	(0.008)	(0.005)	(0.005)	(0.005)
7	-0.41***	0.018*	0.003	-0.002	0.015***	0.015**
	(0.14)	(0.009)	(0.006)	(0.006)	(0.004)	(0.005)
8	-0.29**	0.012	0.003	-0.006	0.013*	0.012**
	(0.14)	(0.009)	(0.006)	(0.007)	(0.006)	(0.005)
9	-0.37***	0.032***	0.005	-0.003	0.017***	0.013***
	(0.13)	(0.008)	(0.005)	(0.008)	(0.005)	(0.003)
Clustered by bank	yes	yes	yes	yes	yes	yes
Firm-time fixed effects	yes	yes	yes	yes	yes	yes
Bank fixed effects	yes	yes	yes	yes	yes	yes
Bank controls	yes	yes	yes	yes	yes	yes

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Impact on real economy

- To link the financial system with the real sector we created a measure of financial exposure for each firm

$$Credit\_Exposure_{i,t} = \frac{1}{J}\sum_{j} \mathbf{1}\left\{Primary\_Bank_{i,j,t}\right\}$$

- We then regress this exposure measure against different outcome variables: assets, liabilities, investments, profits, equity

$$y_{i,t} = \alpha_{ts} + \beta Credit\_Exposure_{i,t-1} + \epsilon_{i,t}.$$

Impact on firms

Cuadro 2: Impact of lenders' bond holdings on firms' balances

	Δ Assets		Δ Liabilities		Δ Investments		Δ Profits		Δ Wages		Δ Employment	
					t							
Credit_Exposure$_{i,t-1}$	-0.019	-0.018	-0.032***	-0.032***	-0.260**	-0.213*	-0.045**	-0.043**	-0.118***	-0.120***	-0.022	-0.024*
	(0.013)	(0.013)	(0.011)	(0.011)	(0.121)	(0.120)	(0.020)	(0.019)	(0.040)	(0.038)	(0.015)	(0.014)
Obs	17,054	16,989	17,053	16,988	4,354	4,283	16,906	16,841	14,526	14,462	7,335	7,372
R^2	0.033	0.060	0.032	0.054	0.019	0.136	0.023	0.063	0.029	0.052	0.015	0.039
					t+1							
Credit_Exposure$_{i,t-1}$	-0.0003	-0.0052	-0.0385**	-0.0433***	-0.0092	0.0489	0.0305	0.0292	0.0600	0.0707	0.0002	0.0017
	(0.0193)	(0.0192)	(0.0160)	(0.0155)	(0.163)	(0.163)	(0.0285)	(0.0292)	(0.0526)	(0.0539)	(0.0186)	(0.0197)
Obs	17,055	16,993	17,054	16,992	4,359	4,283	16,906	16,844	14,527	14,467	7,337	7,317
R^2	0.033	0.060	0.031	0.054	0.018	0.135	0.021	0.061	0.028	0.051	0.012	0.028
					t+2							
Credit_Exposure$_{i,t-1}$	-0.0004	-0.0027	-0.0110	-0.0086	-0.0484	-0.0678	0.0144	0.0187	0.0503	0.0131	-0.0087	-0.0087
	(0.0264)	(0.0257)	(0.0189)	(0.0189)	(0.0925)	(0.0882)	(0.0375)	(0.0376)	(0.0864)	(0.0902)	(0.0273)	(0.0286)
Obs	17,054	16,981	17,053	16,980	4,348	4,258	16,906	16,831	14,525	14,449	7,333	7,298
R^2	0.015	0.048	0.017	0.046	0.019	0.098	0.014	0.051	0.014	0.047	0.013	0.035
Clustered by industry	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Time FE	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no
Indusrty FE	yes	no	yes	no	yes	no	yes	no	yes	no	yes	no
Time-Industry FE	no	yes	no	yes	no	yes	no	yes	no	yes	no	yes

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Results

- A 1pp increase in PD's bonds-to-assets ratio decreases loans by 0.2 % (cumulative decline on 1 % over 12 months).
  - RDD 1: PD (vs Non-PD) reduce their credit to firms by 11 %.
  - RDD 2: PD winners at government auctions reduce loans by 19 % percent compared to auction losers.
  - RDD back-of-envelope: decline in loans of 1 % when government debt increases by 1pp of GDP.
- Affected firms are only partially able to substitute their loans with other lenders.
- Crowding-out effect is lower for older and larger firms, firms with more workers, and with higher profits.
- Real Economy: Credit exposure (scaled to a government debt increase of 1pp of GDP) leads to a decline in liabilities, investment, profits, wages, and employment of 0.22 %, 1.4 %, 0.29 %, 0.81 %, and 0.16 %.

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