Banks' Business Model and Credit in Chile: "Mandates do Matter"

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- It would be reasonable to expect some of these changes having an impact on how banks grant loans, fund themselves and react to monetary policy
- However, paraphrasing Thomas Jefferson, not all banks are made equal...

Questions

1. How did the GFC, and other external shocks, affect the Chilean banks' business models?
2. Did these events reshape the bank lending channel of monetary policy?
3. How big a role has a large publicly-owned bank played in all of the above?

Related Literature

Others have already looked into some of these questions

- Alfaro et al. (2005)
- Fernández (2005)
- Cato and Pagan (2010)

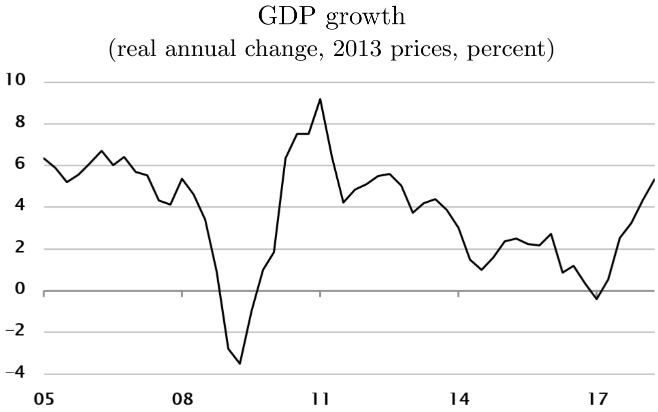
How is our approach different from theirs?

- Post-GFC
- Granular data
- Banco Estado

Outline

1. Background
2. Methodology
3. Main Results
4. Final Remarks

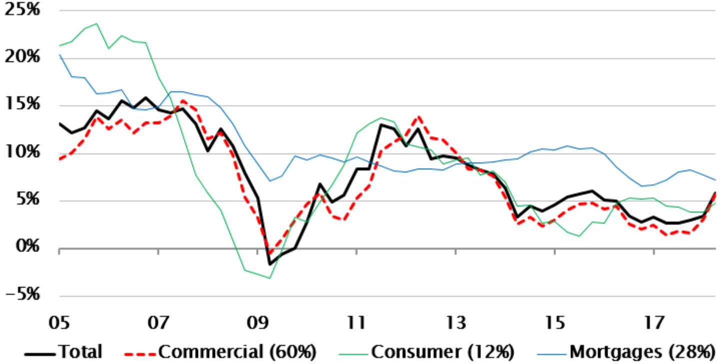
GFC hit the Chilean economy, leading to a three-quarter long GDP drop



Source: Own elaboration based on Central Bank of Chile data.

Which in turn, translated into a credit crunch

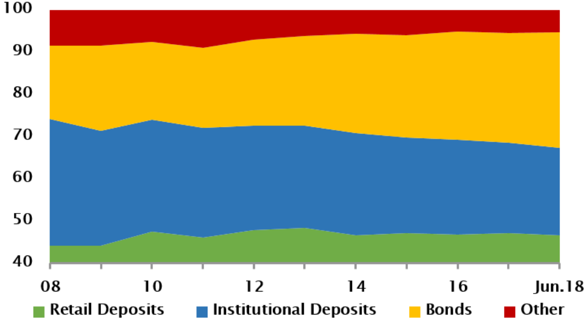
Loan growth (*)
(real annual change, percent)



(*) In parenthesis, share over total stock of loans as of 2018.
Source: Own elaboration based on SBIF data.

Also, a deterioration in access to funds from foreign banks made local institutions resort to bond funding

Banking Sector Liabilities (*)
(percent of liabilities)



(*) Institutional deposits include pension funds, mutual funds, international banks, and others.
Source: Own elaboration based on SBIF, CMF and SP data.

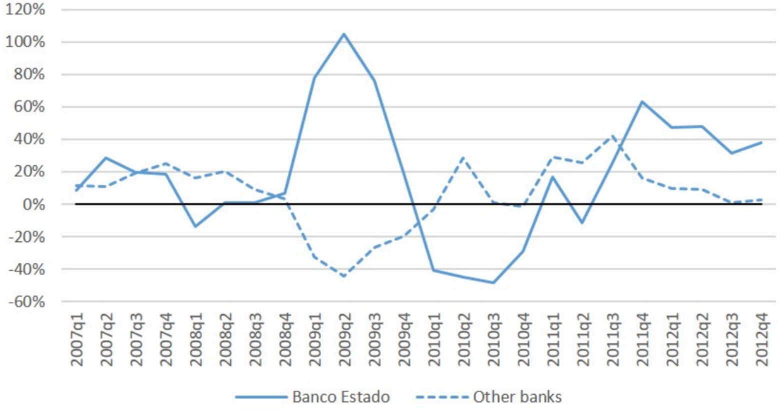
Policy Response: fostering credit supply

Main policy: Banco Estado's (BE) capital injection on December 2008

- Third largest bank in Chile (13% commercial loans, before policy)
- **Mandate: to grant loans while maintaining portfolio quality**
- 500 MM USD, 36% equity increase, CAR of 10.8
- $\Rightarrow$ 5.4 billion USD in potential new loans

Policy Outcome: Banco Estado behaved counter-ciclically

Bank Commercial Lending: Banco Estado vs Other Banks
(quarterly flow of loans, annual growth rate)



Source: Toro (2018).

Main takeaway so far

Banco Estado does not behave as a regular commercial bank!

Empirical Strategy

$$\Delta \log L_{fbt} = \beta X_{b,t-1} + bank_b + firm_f \times t + \epsilon_{fbt} \quad (1)$$

$$\Delta \log L_{fbt} = \beta X_{b,t-1} + \sum_{j=0}^{3} \delta_j (\Delta i_{t-j} \times X_{b,t-1}) + bank_b + firm_f \times t + \epsilon_{fbt} \quad (2)$$

$$\Delta \log L_{fbt} = (\beta + \gamma C) X_{b,t-1} + bank_b + firm_f \times t + \epsilon_{fbt} \quad (3)$$

Balance sheet and credit registry data in quarterly frequency for the period spanned between 1990:Q1 and 2016:Q4, for each bank (b) firm (f) pair and time period (t)

Baseline Specification

ln **Credit**	**Full sample**	**wo BE**
ln Total assets $(t-1)$	-0.014	-0.031
	(0.433)	(0.100)
Share of net fees and commission income $(t-1)$	-0.197	-0.289*
	(0.291)	(0.067)
Loan-loss provisions over total loans $(t-1)$	-1.648**	-1.870***
	(0.002)	(0.000)
Retail loans over total loans $(t-1)$	0.201**	0.242***
	(0.002)	(0.000)
Share of short-term funding $(t-1)$	0.300***	0.316***
	(0.001)	(0.000)
Share of funding in foreign currency $(t-1)$	-0.079	-0.094
	(0.442)	(0.334)
Return on assets $(t-1)$	2.869	3.095
	(0.194)	(0.165)
Debtors	104,109	104,109
Banks	36	35
Obs.	4,629,902	4,342,815
R^2	0.414	0.438

Main Results

- **Negative relationship between loan-loss provisions and credit growth:** backward-looking adjustment process carried out by banks to comply with provision requirements (Bouvatier and Lepetit (2012))
- **Positive relationship between both retail loans and short-term funding and credit growth:**
  - a business model more based on retail loans would provide a more stable funding base, which in turn will foster lending (Blundell-Wignall and Roulet (2013)),
  - short-term funding reduces the fraction of actively monitoring intermediaries, enabling lax credit choices (Perotti and Suarez (2009))

Main Results [cont.]

- All of our results are robust to the exclusion of the publicly-owned bank (BE)
- When removing BE from the sample, the interaction coefficients between private banks' characteristics and bank lending are increased since all the banks in the pool are more alike
- In particular, when excluding BE from the sample, we find evidence of counter-cyclical behavior among the remaining banks during commodity price busts

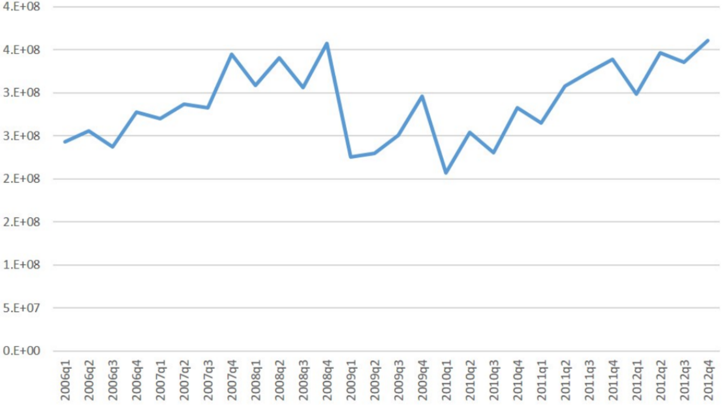
Final Remarks

- Our results, based on granular data, confirm the presence of a bank lending channel in Chile
- Results indicate that during bust periods, banks adapted and resorted to alternative sources of income. However, due to its capital injection, BE did not go that way
- In future work we will explore the real implications of BE's mandate. In particular how it may differentially affect productivity among firms

Thank you!

GFC had significant and persistent effects on loan granting

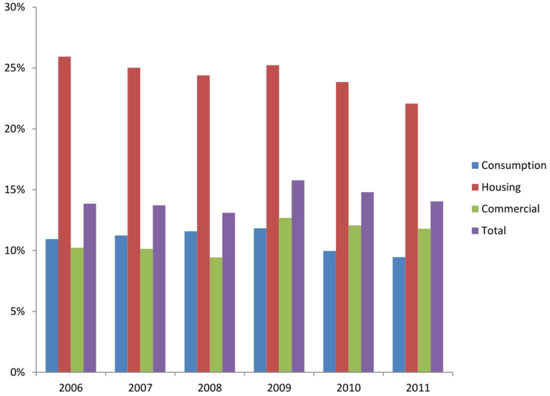
Bank Commercial Lending in Chile
(quarterly flow of loans, inflation adjusted level)



Source: Toro (2018).

Policy led to an increase in BE's share on commercial loans

Banco Estado Share over Stock of Loans
(percent)



Source: Lagos and Tapia (2014).