Discussion of
Acosta-Henao, Fernández, Gomez-Gonzalez and Kalemli-Özcan (2023):

The COVID-19 shock and firm financing: Government or market? Or both?

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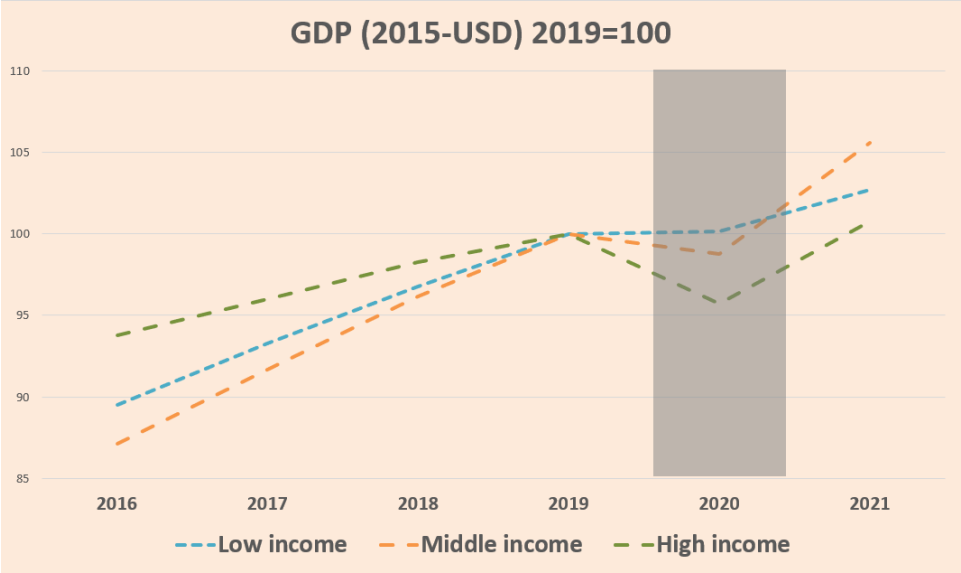
IMF/Norges Bank/IMFER Conference on The Future of Macroeconomic Policy

June 2023


GDP (2015-USD) 2019=100
110
105
100
95
90
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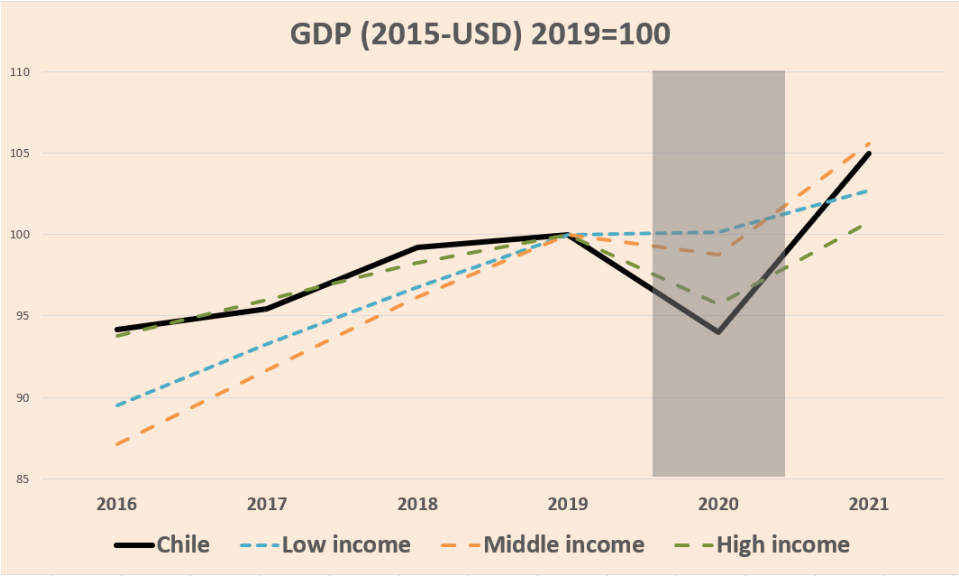
2016
2017
2018
2019
2020
2021
Low income
Middle income
High income


GDP (2015-USD) 2019=100
110
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2016
2017
2018
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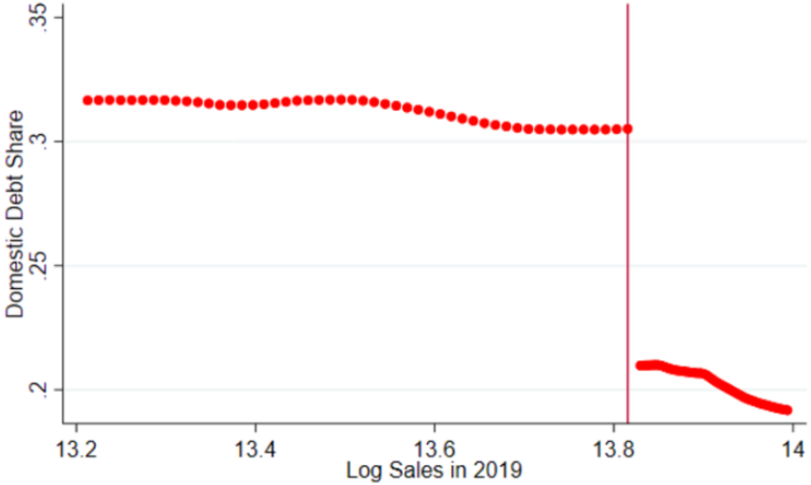
2021
Chile
Low income
Middle income
High income

What did the Chilean Central Bank do?

- **Lowered policy rate to ELB of 0.5%**
- **Bank credit lines**
- **Credit guarantees for firms with 2019-sales below size-cutoff**
  - Expansion of existing program
  - size-cutoff was increased from 350,000 UF to 1 mill UF $\rightarrow$ RD design ($\approx$ \$12 mill. $\rightarrow$ \$35 mill.)
  - new interest rate ceiling of policy rate + 3 pp

Eligibility increased domestic debt share by 9.4 pp

Figure 4: Domestic debt share vs Sales - Estimated polynomial May to July of 2020



Some comments

- **Very clean RD - looks convincing!**
- Still, could be nice to replicate figure pre-covid
  - 1 mill. UF cut-off is new and discontinuity should be novel
- Looks like an excellent first stage – impact of domestic debt share?
  - employment
  - investments
  - risk-taking
  - bankruptcy
  - default
  - ...

Domestic credit became relatively cheaper for the eligible

$$i_{f,b,d,m} = \alpha_{f,b} + \lambda Trend_m + \underbrace{\delta}_{\text{premium}} FX_{f,b,d,m} + ... + \epsilon_{f,b,d,m}$$

- Estimate separately pre- and during → FX-loans no longer cheaper post-March 2020
  - *why not include a post-March 2020 dummy instead?*

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$$i_{f,b,d,m} = \alpha_{f,b} + \lambda Trend_m + \underbrace{\delta}_{\text{non-eligible}} FX_{f,b,d,m} + \underbrace{\psi}_{\text{additional premium eligible}} E_{F,M} FX_{f,b,d,m} + ...$$

- Post-March 2020: domestic loans cheaper for eligible firms
  - *triple interaction: price of FX loans post-march 2020 for the eligible?*

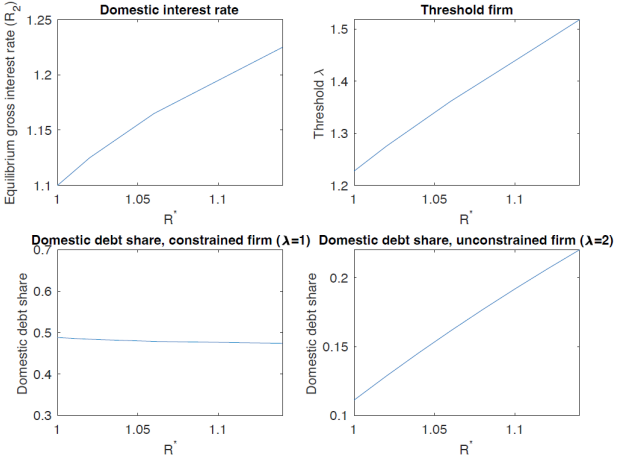
Model

- Firms must borrow for production
- Foreign financing is cheaper, but requires **international collateral** (varies across firms)
  - all firms borrow as much as they can in the foreign market
  - the rest they borrow domestically $\rightarrow$ some are constrained, some are not
- Shock 1 "COVID-19": International financing becomes more expensive
- Shock 2 "Credit guarantees": share of output which can be used as domestic collateral increases
- Model extension: central bank liquidity

COVID-shock

- International financing more expensive → reduces international financing for all
- The unconstrained **increase domestic lending**
  - **domestic interest rate** ↑
- (Constrained decrease domestic lending (due to ↓Y))

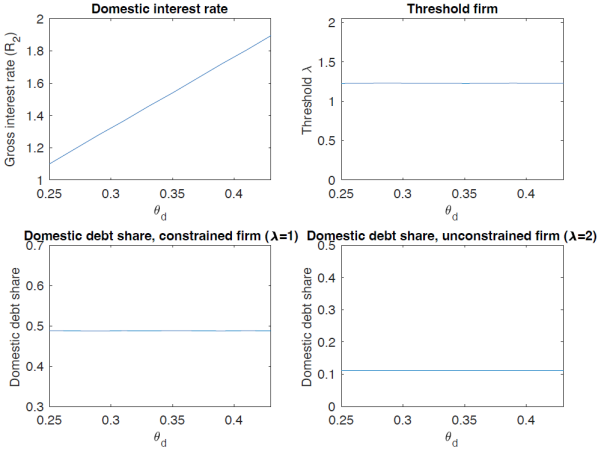
Figure 7: Effect of a global shock: an increase in $R^\star$



Firm credit guarantees

- Domestic borrowing limit increases
- Constrained firms want to borrow more domestically
- But **supply is fixed** and unconstrained do not want to borrow less
- Effect shows up in **more expensive domestic borrowing**

Figure 8: Effect of an increase in θ_d



Model

- Shocks 1 and 2 do *not* produce the empirical results of:
  - cheaper domestic lending
  - higher domestic debt share
- Solution: make credit supply non-fixed by introducing CB credit provision
  - motivated by actual CB policy
- **Combination of credit guarantees and higher credit supply can achieve both cheaper domestic lending and a higher domestic debt share**

Some comments

- Model motivation
  - can explain findings - good
  - can it be used to say something more?
- Mapping between **cross-sectional** empirical results and model
  - data: relative increase in domestic debt share for eligible firms
  - data: CB credit lines (and COVID) applied to all
  - model: which group is being modeled?
- Should interest decline be matched?
  - model: supply and demand pin down interest rate
  - data: price set by CB at policy rate + 3 pp

Summing up

- **Very interesting paper** with
  - nice micro data
  - clean policy variation
- **Potential extensions**
  - empirical implications of increased domestic debt share as second stage
  - use model to contemplate counterfactuals