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# Government-Guaranteed Loans Enable Firms to Preserve Jobs during Cash Flow Shocks (COVID)



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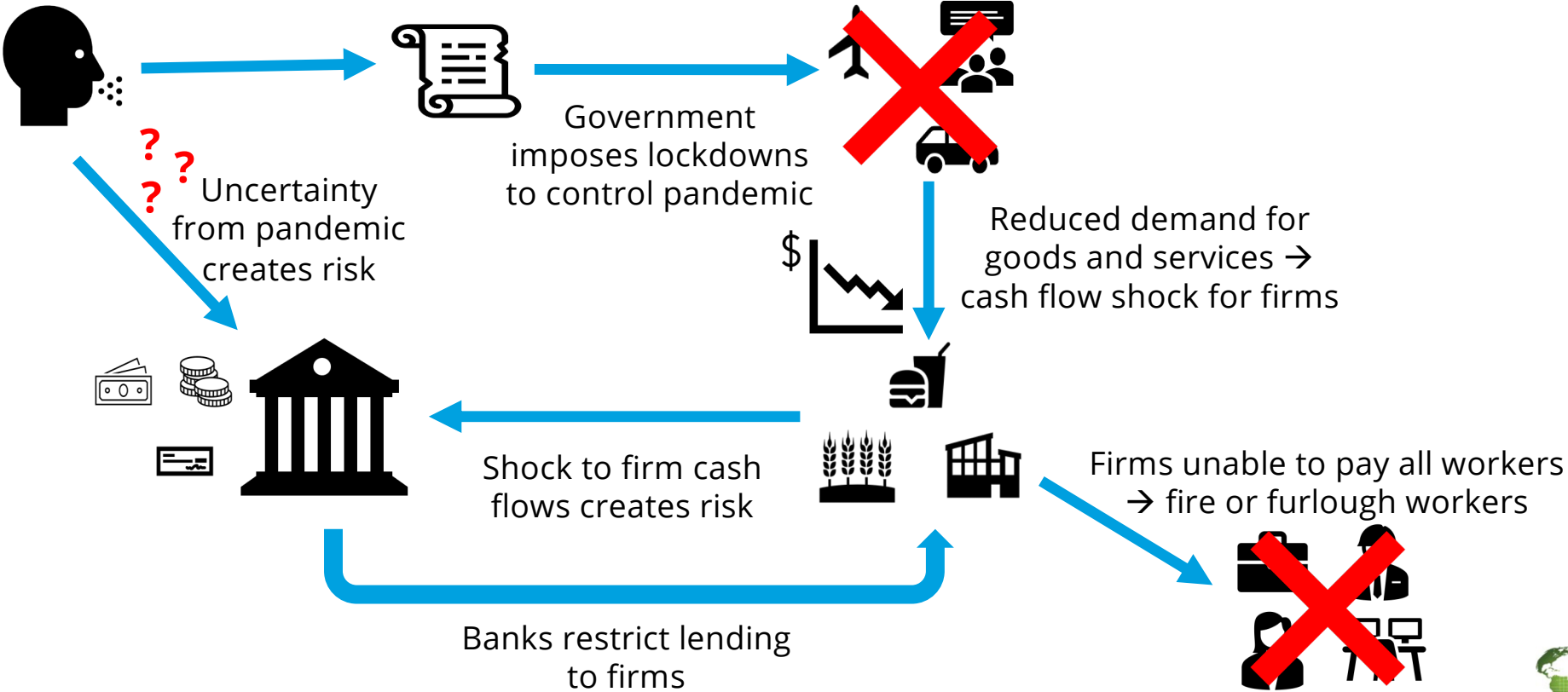
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## Look at Effect of Government Guaranteed Loans to SMEs on Employment

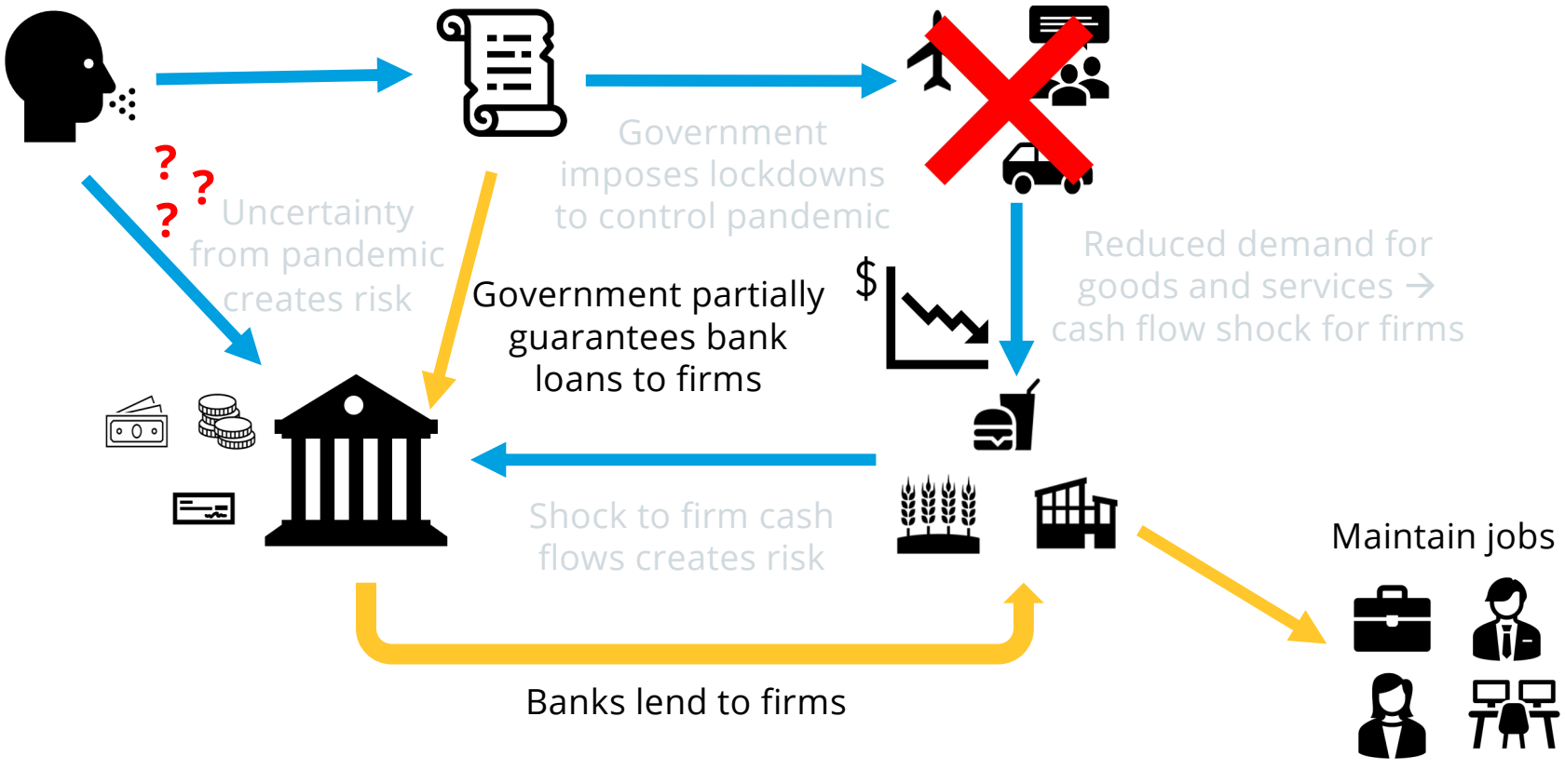
- SMEs engine of economic growth and account for much of total employment
- SMEs finance wage bill (employment) from cash flow (current revenues)
- Many liquidity constrained –
  - Difficult to borrow when have cash flow shocks – high risk
  - Large shocks to cash flow likely force layoffs if cannot borrow
  - Layoffs have transaction costs to finding and training new workers
- COVID was large shock to cash flow
- 145 countries implemented Gov't guaranteed loan programs for SMEs to support employment during COVID,
  - e.g., U.S.'s Paycheck Protection Program



# Theory of change



# Theory of change



## Data –

- Mobility data based on cell phones
- Individual SME Transactions from 5 Banks
- Employment data from Social Security

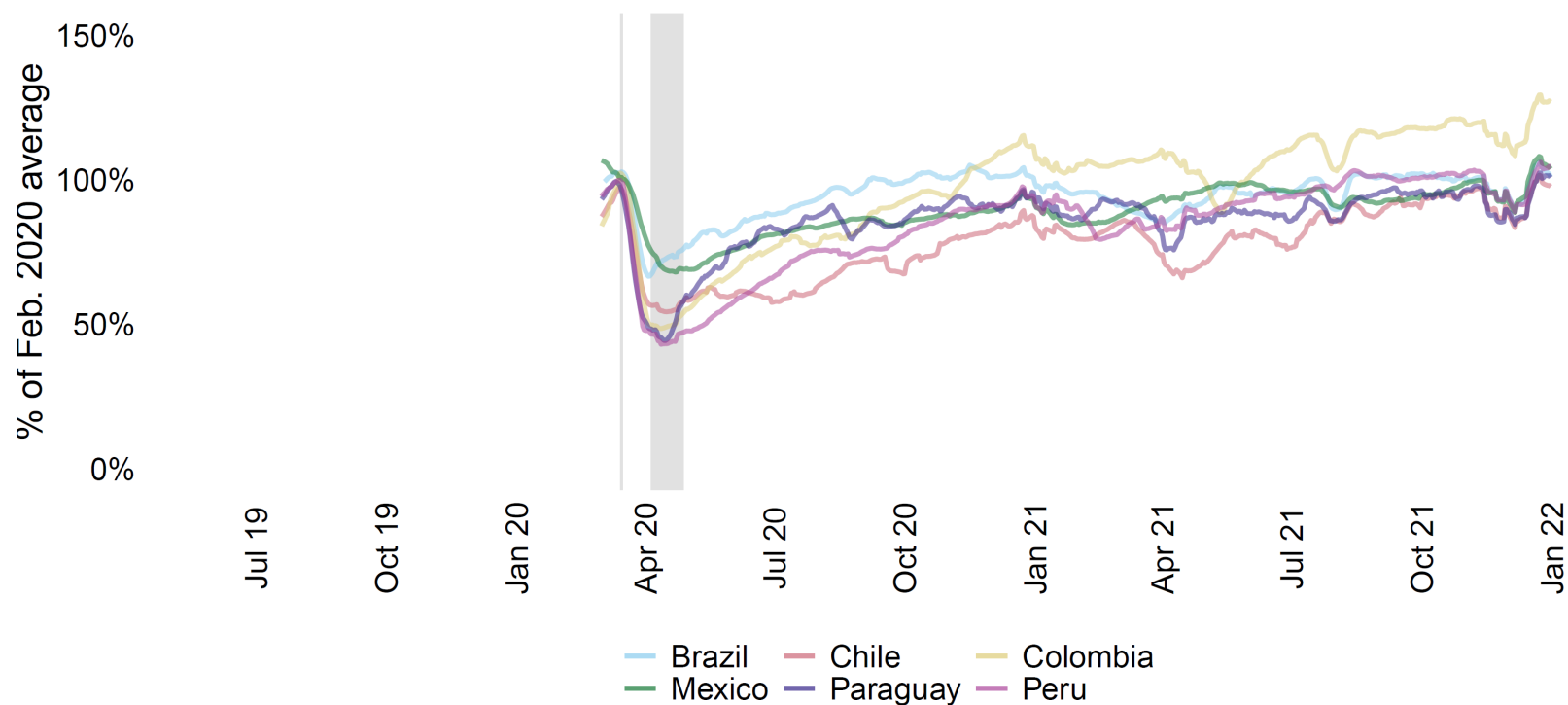
Table: Descriptive statistics of LAC countries

Country	Bank	Total SMEs	Avg. monthly deposits 2019 (USD)	Population (Millions)	GDP 2019 (Billion USD)
Chile	BCI	117,063	4,062,011	18.95	278.58
Colombia	Davivienda	389,000	8,420,180	50.34	323.11
Mexico	BBVA	357,933	12,532,334,109	127.6	1270
Paraguay	BASA	882	5,517.165	7.04	37.93
Peru	Interbank	140,083	51,723	32.51	228.32



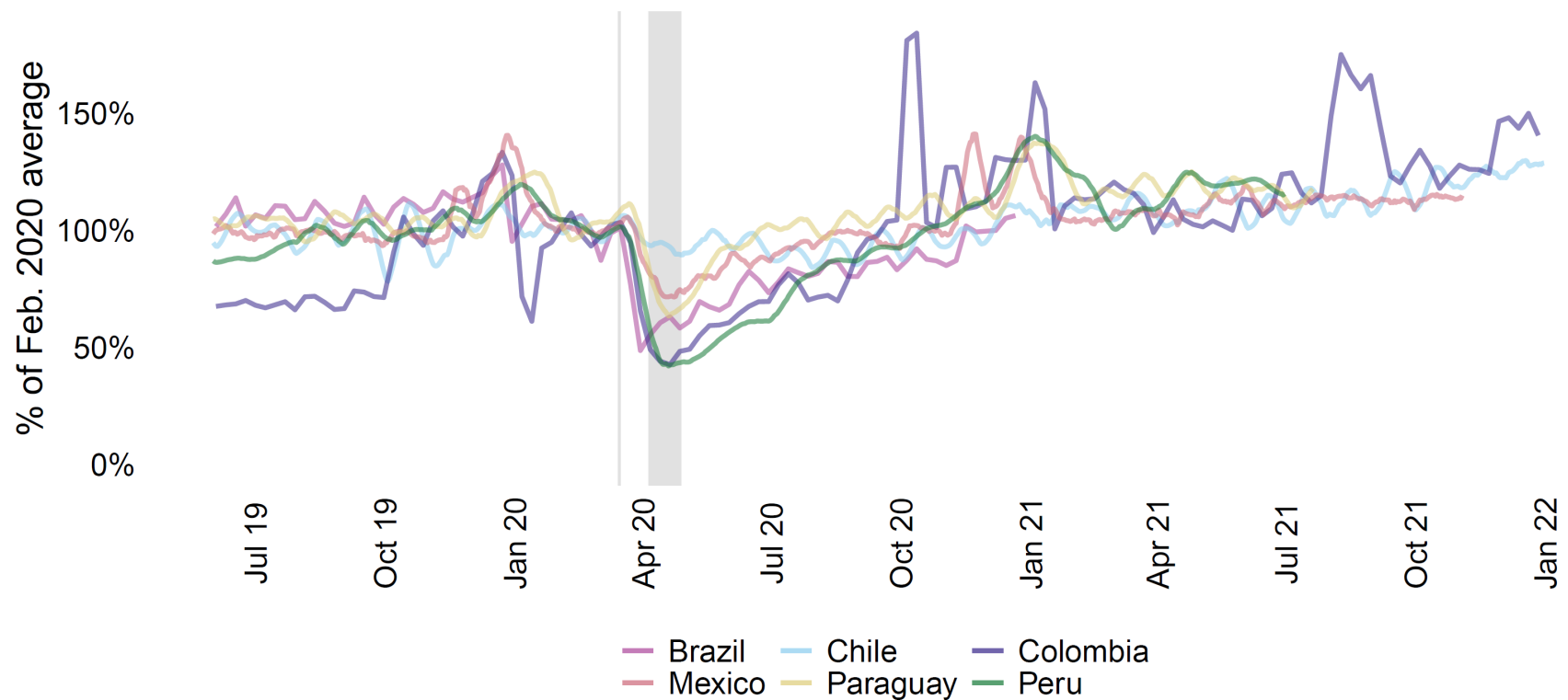
## COVID-19 Impacted Businesses Through Decreased *Mobility*

- Countries experienced sharp declines in mobility measured by cell phone use, after the implementation of social distancing restrictions (lockdown)
- Gray bar indicates dates of first lockdowns



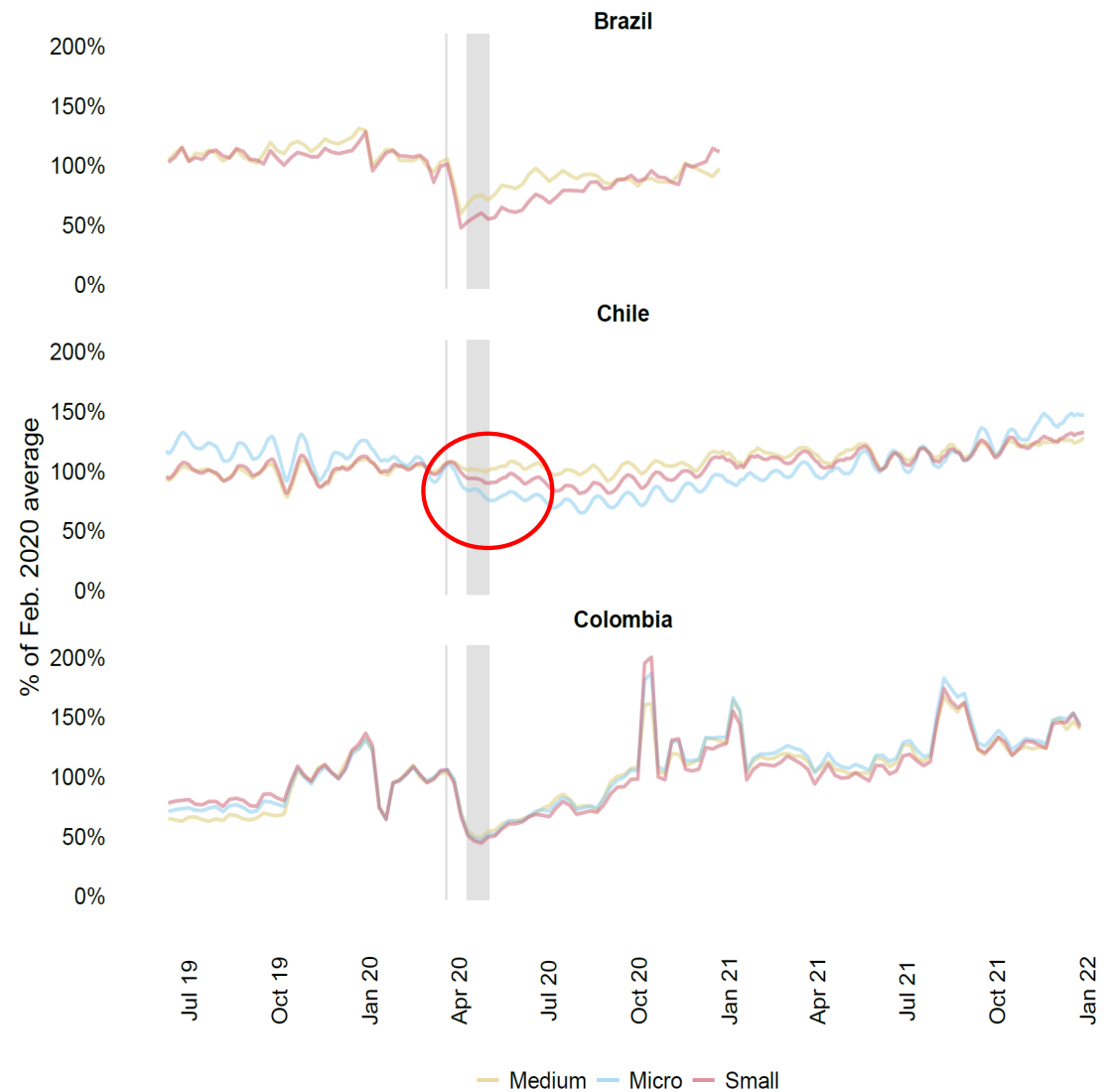
## Large Declines But fast Recovery in SME Revenues Due to COVID

- Over 2 million SMEs saw their revenues decline from 10% to 50% (lockdown)
- Recovered quickly returning to pre-COVID levels within 3-6 months



## Differences by Firm Size

- Two competing effects:
  - (-) Smaller businesses had less access to liquidity
  - (+) Most economic relief programs were targeted at MSMEs
- Still, effects larger for small firms in Chile





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# Examined impact of Chilean Government SME Loan Guarantee Program (FOGAPE) on Employment

- Chile expanded their government-guaranteed loan program for small and medium enterprise (SMEs) in June 2020
  - \$14B in government-guaranteed loans during COVID compared to annual average of \$1B in non-crisis years
  - Provided funds to banks to lend to SMEs
  - 80% of loan guaranteed
  - Interest rates capped at 7.7% maximum annual interest rate
  - Banks did not lend to risky firms, only those that would have had access to credit without program
- 145 countries implemented similar loan policies during COVID (Gentilini et al. 2021)



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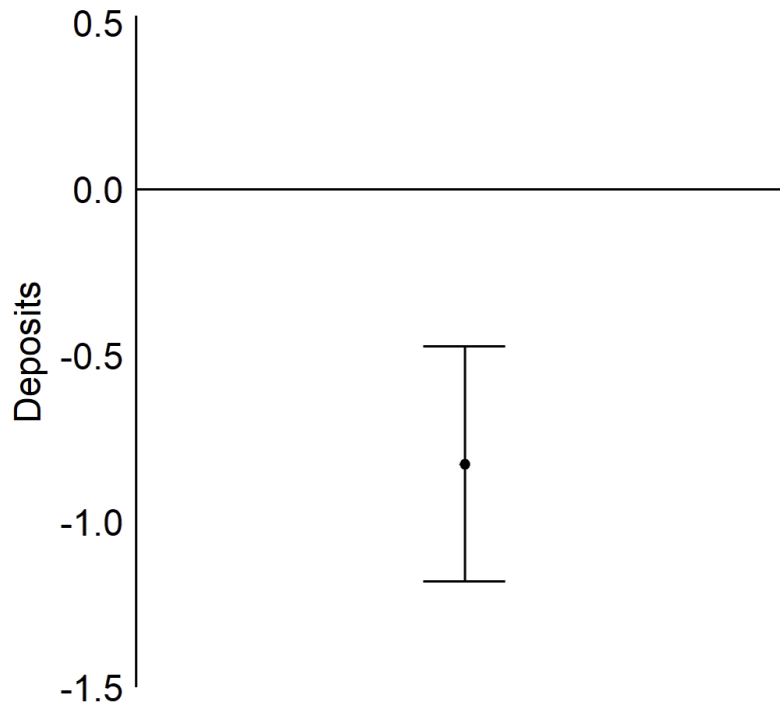
## Partnership with Chilean bank *Banco de Créditos e Inversiones* (BCI) to offer FOGAPE credit to high-risk clients.

- Offer FOGAPE loans to higher risk SMEs who
  - Had previously applied for loan but been rejected
  - Randomized loan offers to half of 10,072 SMEs
  - SMEs had 1-110 employees (median = 3)
- Conducted an RCT comprising 10,072 SMEs who had previously requested a loan during the pandemic prior our experiment.
- Loans disbursed between February 2021 to June 2021 → Take-up: 27.2%
- Average loan amount: 13.1 million chilean pesos



# Impact of Lockdown on Firm's Deposits (Revenues)

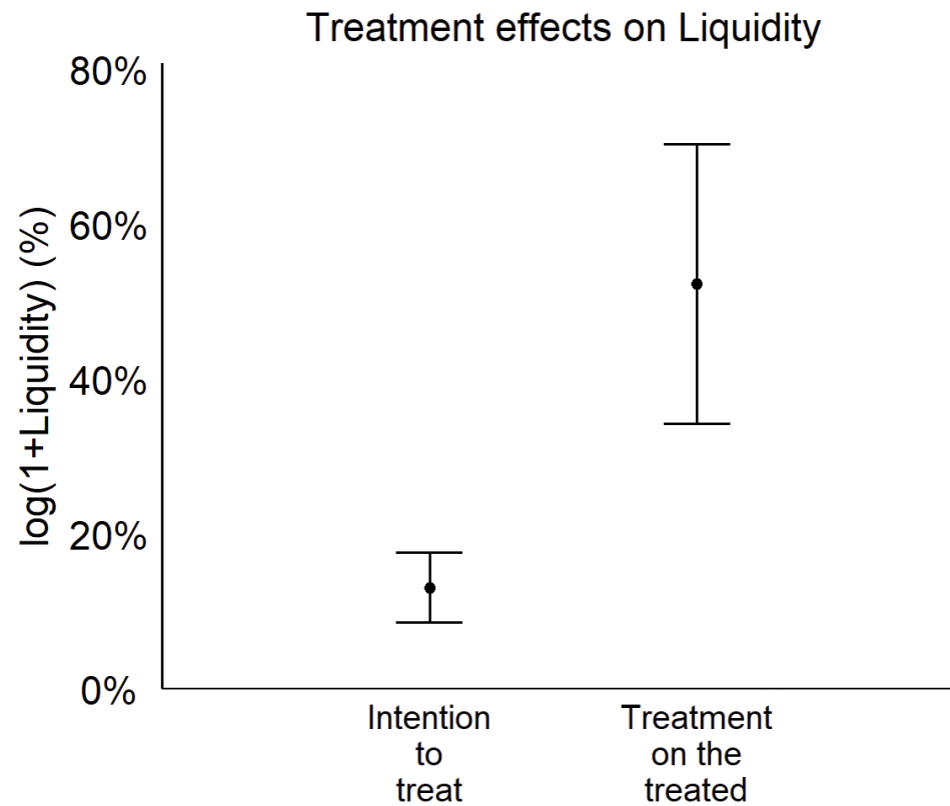
Effect of Lockdowns on SME's monthly deposits  
(million chilean pesos)



- Observations: 120,780.
- Number of SMEs: 10,065.
- Control group avg. 9.701 million chilean pesos.
- Effect of lockdown: -0.827



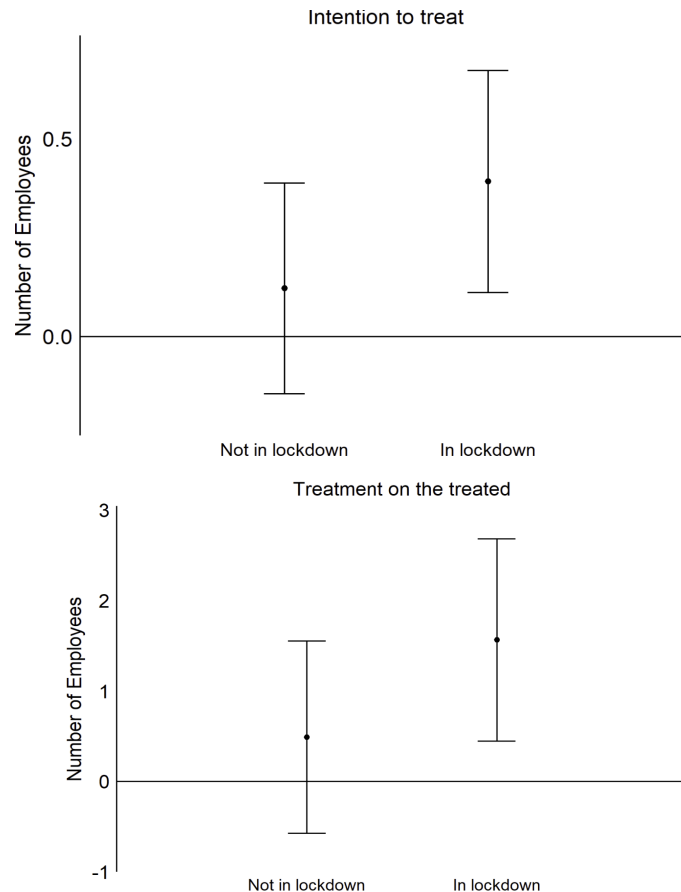
# Impact on Access to Credit



- Observations: 156,017.
- Number of SMEs: 10,065.
- Intention to treat: 13.1%
- Treatment on the treated: 52.4%



# Impact of Credit on Employment by Lockdown Status

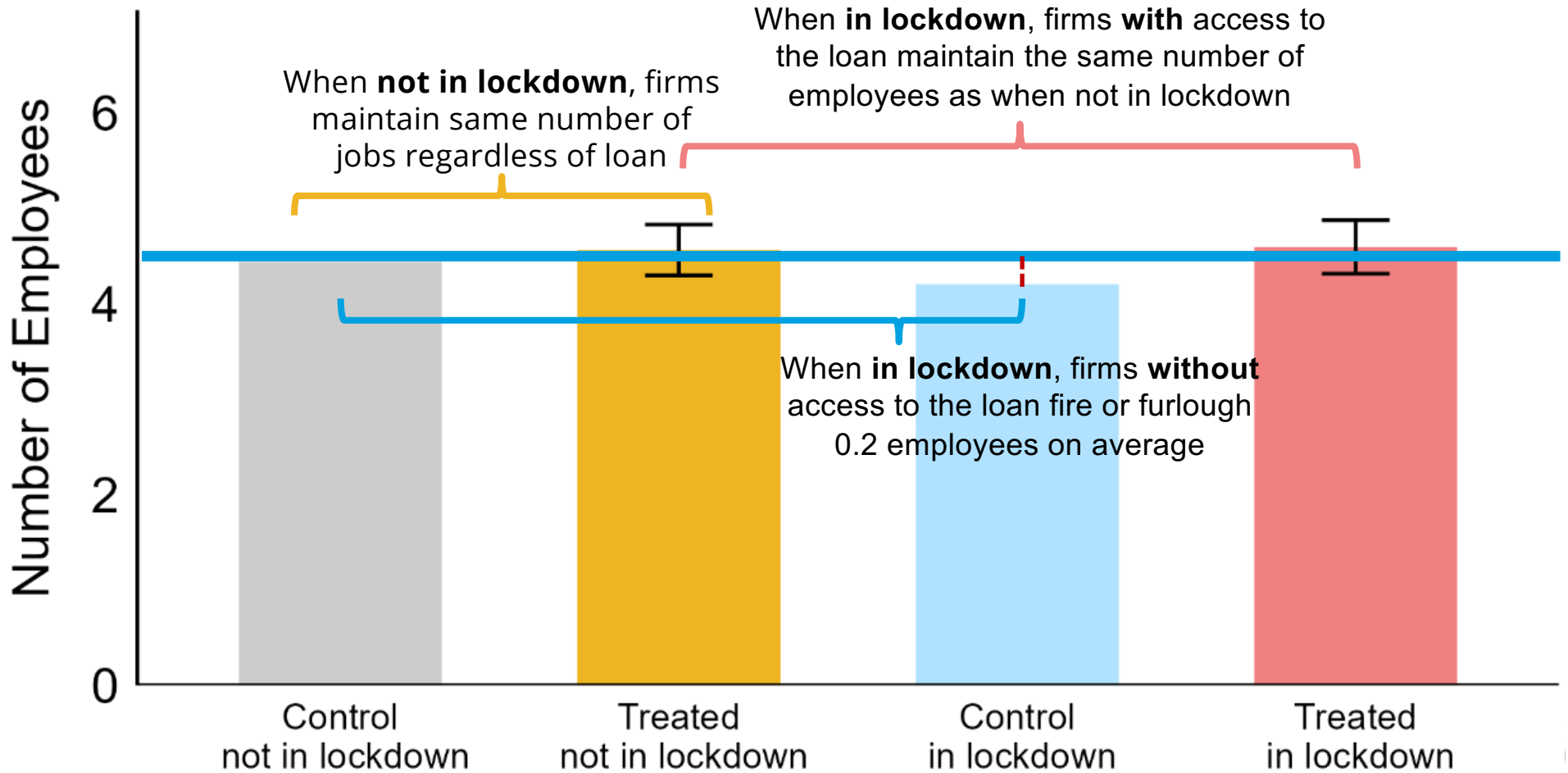


- Observations: 118,044.
- Number of SMEs: 8,743.
- Control group's avg. # of employees:
  - Not in lockdown: 4.437.
  - In lockdown: 4.199.
- Intention to treat:
  - Not in lockdown: 0.122
  - In lockdown: 0.392
- Treatment on the treated:
  - Not in lockdown: 0.488 employees
  - In lockdown: 1.563 employees

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# Loans led SMEs to maintain jobs during lockdown



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## What have we seen today

Small firms finance wage bill out of cash flow and have limited access to credit

Many small firms are unable to maintain employment during periods of economic crisis when they experience revenues shortfalls

Firing and hiring employees costly – finding and training them

COVID was a large shock to revenues

Gov't guaranteed credit in Chile helped small firms maintain employment during lockdown as part of the Gov's COVID response

Program was targeted to high-risk firms that otherwise would not have had access to credit.

