Informal Labor Markets in Times of Pandemic:
Evidence for Latin America and Policy Options

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The COVID pandemic and the related confinement policies acted as an unprecedented shock to labor markets

Three questions that we address in this project:

- How were labor markets in Latin America affected?

    … starting from the evidence for Mexico and extending it to other LAC

    - Role of the participation and informality margins
    - Comparison with past recessions
    - Heterogeneity inside the labor force (age, gender, sector, ...)

- What can we say about the nature of the shocks affecting these economies?

- What type of labor market policies could help to speed-up the recovery?

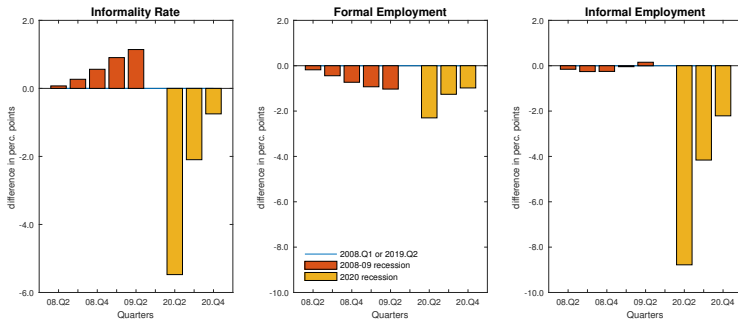Mexico: Evolution of Labor Market Rates in Two Recessions
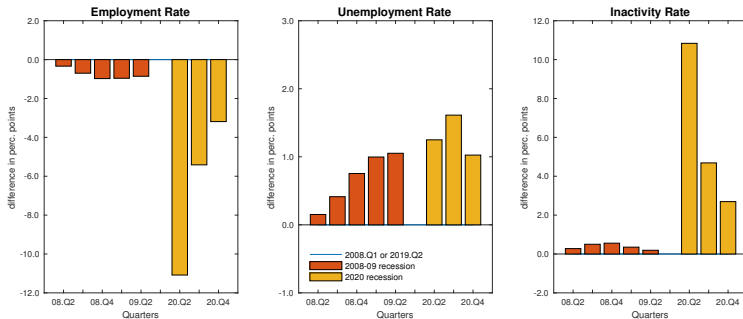
Relative to past recessions, in this pandemic we observe

- Large fall in employment in the first quarter (2020.Q2)

  ... mirrored by a decline in the participation rate

- Rapid recovery in the second half of 2020

Mexico: Evolution of Informality Rate in Two Recessions

- Unprecedented *fall* in the informality rate during the pandemic recession
  - ... driven by a huge decline of informal employment in 2020.Q2
- Recovery of employment in second half of 2020
  - ... with a rebound in the informality rate

Mexico: Job Creation and Destruction in Two Recessions (% of POP)
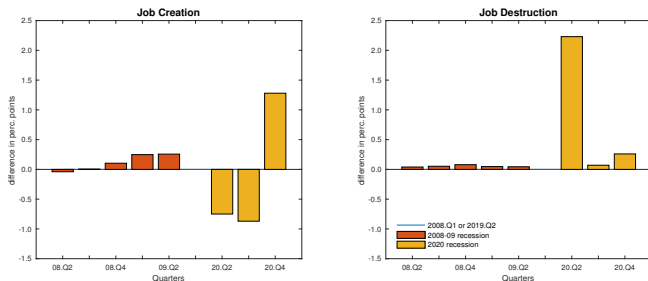
- Employment contraction in 2020.Q2 driven almost entirely by job destruction
- Job destruction has receded by the end of 2020
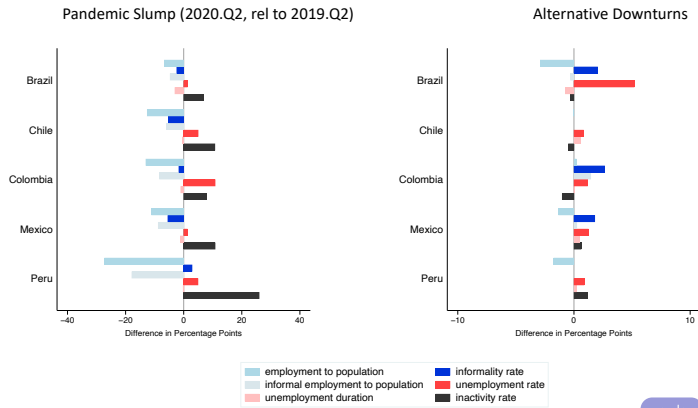   ... while job creation plays a major role in the recovery of employment

- Bigger role for two non-conventional margins at the onset of the pandemic

    - Increase in temporary layoffs, in particular from the informal sector
    - Increase in absent employees, more so in the formal sector

    ... fading away by the end of 2020

    table

- A larger impact of the pandemic on women, younger workers, and in contact-intensive sectors (services)

- However, the fall in informality is not driven by a composition effect only

Latin American Labor Markets during the Pandemic

Pandemic Slump (2020.Q2, rel to 2019.Q2) — Alternative Downturns

Legend: employment to population, informal employment to population, unemployment duration, informality rate, unemployment rate, inactivity rate

gender   sector

- We confirm observed changes in labor markets for Mexico for 2020.Q2

    - Large drop in overall employment, linked to decline in participation rates
    - Sizable decline in informality rate (one exception: Peru)

Key elements of the model

- Small open economy subject to technology and interest rate shocks
    - Endogenous participation (leisure choice)
    - Formal and informal (self-employed) sectors
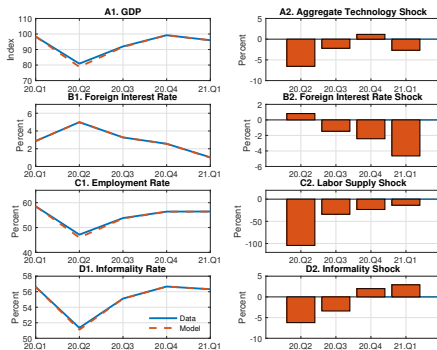   - Matching frictions in the formal labor market

Baseline model calibrated to Mexican data *before* the pandemics

calibration

- Extended model with two new shocks
    - A shock to labor supply (disutility of work parameter)
    - A sector-specific productivity shock (*relative* informality parameter)
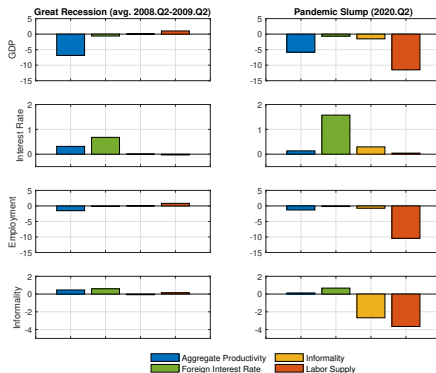
These shocks are reduced-form representations of the impact of COVID-19

- Accounting exercise: recover shocks that rationalize the behavior of GDP, interest rate, employment, and informality rate up to 2020.Q4

- Huge role for the "new" shocks in acounting for the fall in output, employment and the informality rate
  - ... in contrast to the 2008-09 Great Recession

Policy Instrument	Employment Rate	Informality Rate	GDP	Fiscal Cost % GDP	Size
No Policy Intervention	−1.72	0.33	−1.84	–	–
Payroll Tax Cut	0.00	−5.57	4.18	7.49	19.9
Hiring Subsidy	0.00	−5.57	4.18	0.23	53.4
Informal Income Subsidy	0.00	3.73	−1.61	4.13	11.0

- Payroll tax cuts and hiring subsidies incentivize job creation in the formal sector
    ... reducing informality and fostering labor productivity
- Hiring subsidies are more cost-effective in promoting formal employment
- Informal income subsidies incentivize informal employment
    ... dragging productivity and GDP in the recovery

- Our framework does not allow for a feedback from policies to the pandemic itself
    - Would require an epidemiological model

- The model ignores distributional issues
    - Representative household
    - No role for income protection of poor households
    - Would require heterogeneous-agents framework (with incomplete markets)

- Separations in the model are exogenous
    - No role for policies protecting existing formal jobs
    - Would require model of heterogeneous firms

- The pandemic recession is different from previous downturns
    - Larger drop in employment, quicker recovery
    - Informal sector affected the most on impact, rapid rebound
    - Job destruction to inactivity plays a key role in the initial fall in employment

- The pandemic and the related confinement policies affects the labor market through several channels
    - Labor supply vs. demand (wages?)
    - Sector-specific shocks to contact-intensive activities

- Policies to incentivize the recovery of employment should focus on formal job creation
    - How to target this particular margin?

Mexico: Two Non-Conventional Margins

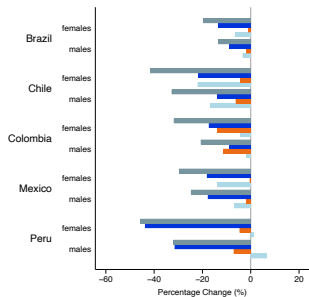|	Overall Employment % Change			Informal Employment % Change			Formal Employment % Change		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Great Recession	-2.3	-2.3	-2.4	0.7	0.8	0.3	-6.6	-6.4	-6.4
2019.Q2-2020.Q2	-29.4	-19.1	-7.2	-31.1	-26.8	-6.2	-26.7	-9.1	-8.5
2019.Q2-2020.Q4	-5.7	-5.5	-4.0	-6.6	-6.7	-4.2	-4.6	-3.9	-3.6
Relative to column 2:									
Great Recession	1.0	1.0	1.1	1.0	1.0	0.5	1.0	1.0	1.0
2019.Q2-2020.Q2	1.5	1.0	0.4	1.2	1.0	0.2	2.9	1.0	0.9
2019.Q2-2020.Q4	1.0	1.0	0.7	1.0	1.0	0.6	1.2	1.0	0.9

2: baseline employment rate (over population)

3: baseline employment rate plus temporary layoffs

1: baseline employment rate minus absent employees

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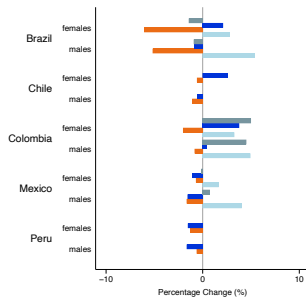
Latin America: Employment by Gender during the Pandemic

Pandemic Slump (2020.Q2, rel to 2019.Q2)

Alternative Downturns

Legend:
- informal employment to population
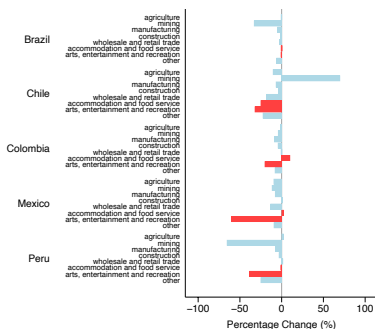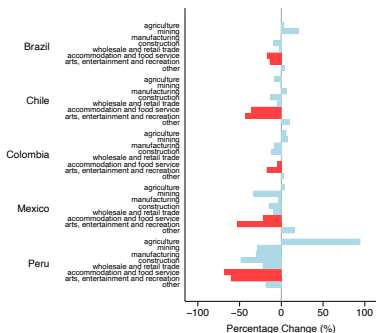- labor force to population
- employment to labor force
- informality rate

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Latin America: Employment by Sector during the Pandemic

Pandemic Slump (2020.Q2, rel. to 2019.Q2)

Model Calibration: Business Cycle Properties

Relative Volatility	Data 1	Model 2	Correlation with Output	Data 3	Model 4
$\sigma(Y)$	1.35	1.35	-	-	-
$\sigma(C)/\sigma(Y)$	0.93	1.01	$Corr(C, Y)$	0.97	0.85
$\sigma(I)/\sigma(Y)$	2.33	2.33	$Corr(I, Y)$	0.87	0.75
$\sigma(L)/\sigma(Y)$	0.40	0.40	$Corr(L, Y)$	0.67	0.99
$\sigma(l^s)/\sigma(Y)$	0.49	0.49	$Corr(l^s, Y)$	-0.56	-0.30
$\sigma(1 + i^*)$	0.49	0.49	$Corr(1 + i^*, Y)$	-0.23	-0.23

- The model reproduces by construction the volatilities of output, investment, employment and the informality rate

    ... and the volatility and counter-cyclicality of the foreign interest rate

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