

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

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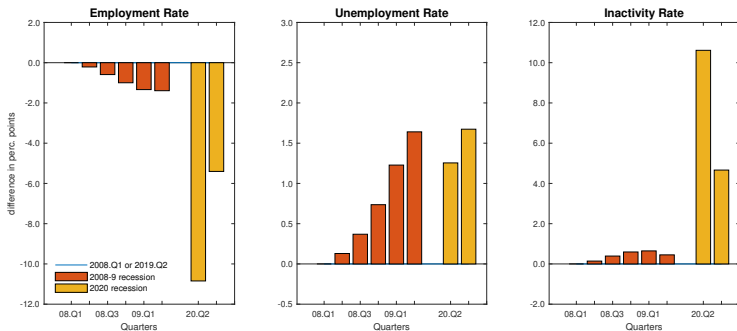
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Mexico: A Tale of Two Recessions

Mexico: Evolution of Labor Market Rates in Two Recessions

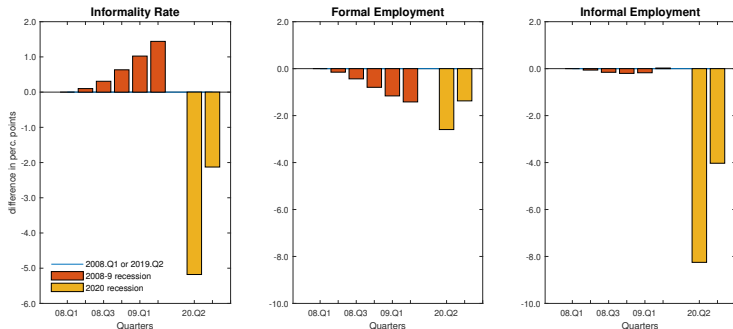


Relative to past recessions, in this pandemic we observe

- Large fall in employment
 - ... mirrored by decline in the participation rate
 - ... with small response of unemployment
- Rapid recovery in 2020.Q3

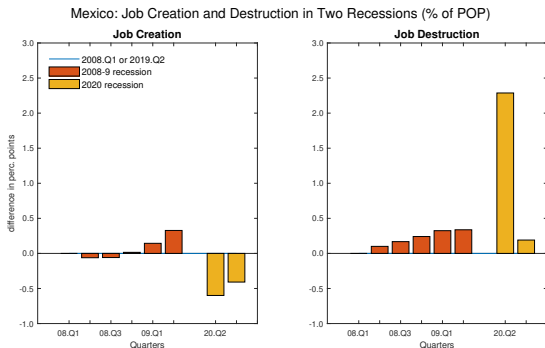
Mexico: Informal Employment and Informality Rate

Mexico: Evolution of Informality Rate in Two Recessions



- Unprecedented fall in the informality rate at the onset of the pandemic recession
 - ... driven by a huge decline in informal employment
- Recovery of employment in 2020.Q3
 - ... with a rebound in the informality rate

Mexico: Job Creation and Job Destruction



- Employment contraction in 2020.Q2 driven almost entirely by job destruction
 - ... more so than during the Great Recession
- Job destruction has receded significantly by 2020.Q3
 - ... to levels comparable to those observed in 2008-9

Latin American Labor Markets during the Pandemic

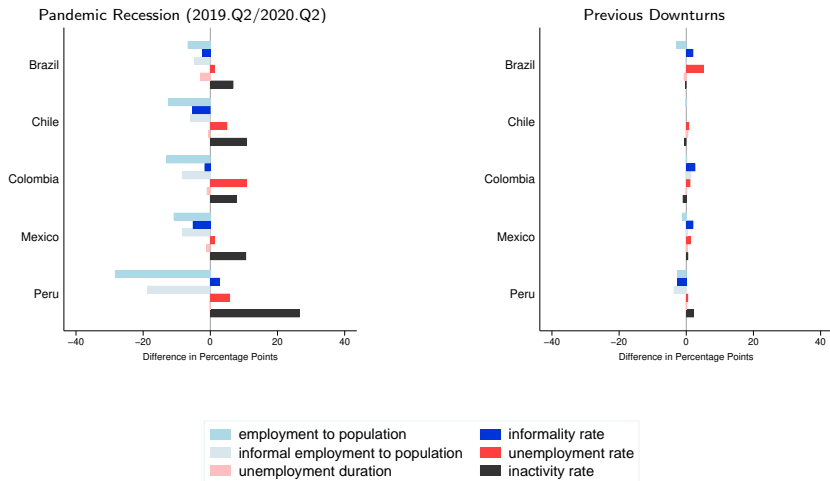
We confirm observed changes in key labor market indicators for Mexico

- Large drop in overall employment
 - ... largely linked to huge decline in participation rates
 - ... partially reflected in higher unemployment rates
- Unprecedented informal job destruction
 - ... informality rates decreasing at the outset of the pandemic
 - ... with one exception: Peru

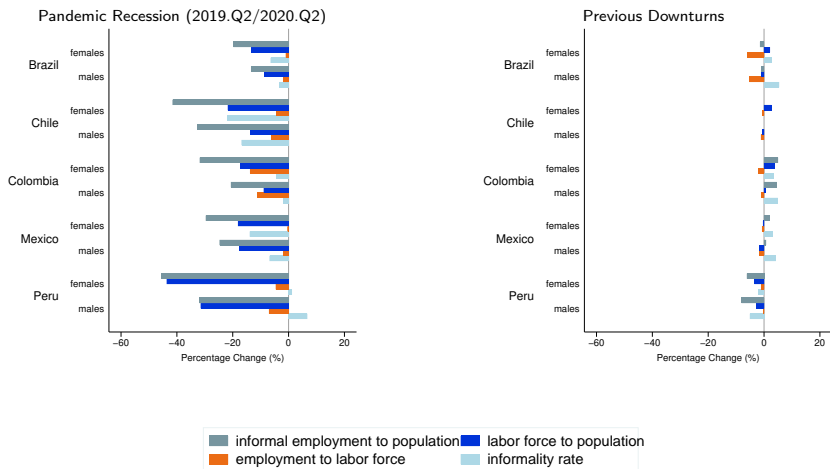
We also decompose these results by gender, age, and sector

- Pandemic has a stronger impact on women, younger workers, and in contact-intensive sectors (services)
 - ... but aggregate results are not driven by a composition effect only

Latin American Labor Markets during the Pandemic (absolute changes)

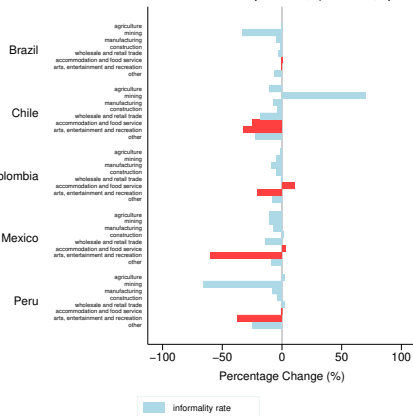


Latin America: Unequal Burden of the Pandemic by Gender

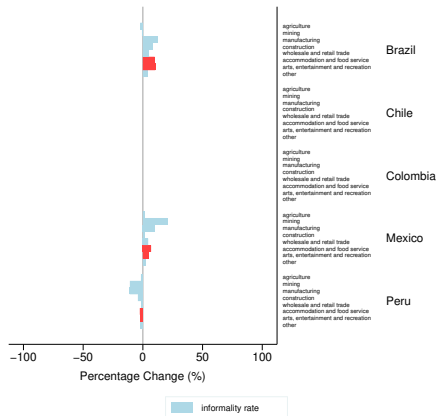


Latin America: Informality Rate by Sector

Pandemic Recession (2019.Q2/2020.Q2)



Previous Downturns



Key ingredients of the model (based on Leyva and Urrutia, *JIE* 2020)

- Endogenous participation (leisure choice)
- Formal and informal (self-employed) sectors
- Matching frictions in the formal labor market
 - Unemployed workers search for jobs, firms post vacancies
 - Employment protection in the formal sector, modeled as firing cost
- Representative family (full insurance within household)
- Small open economy subject to technology and interest rate shocks

The model is calibrated to Mexican data before the pandemic.

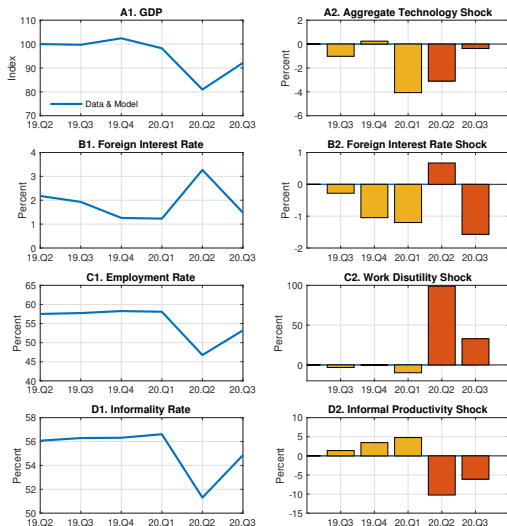
Calibrating the Model: Business Cycle Moments

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	1.02	$Corr(C, Y)$	0.97	0.85
$\sigma(I)/\sigma(Y)$	2.33	2.33	$Corr(I, Y)$	0.87	0.75
$\sigma(L)/\sigma(Y)$	0.41	0.41	$Corr(L, Y)$	0.68	0.99
$\sigma(l^s)/\sigma(Y)$	0.53	0.53	$Corr(l^s, Y)$	-0.57	-0.31
$\sigma(1 + i^*)$	0.49	0.49	$Corr(1 + i^*, Y)$	-0.24	-0.24

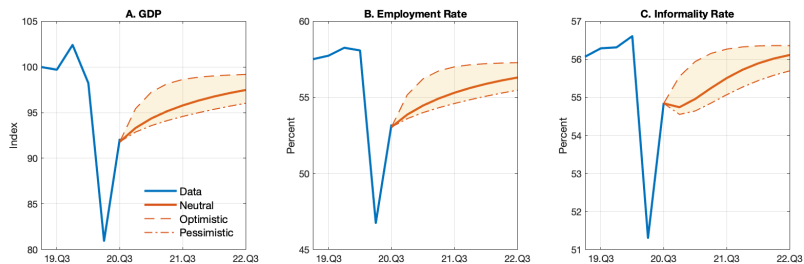
- The model reproduces by construction the volatilities of output, investment, employment and the informality rate
 - ... and the volatility and counter-cyclical of the foreign interest rate

- Extended model with two new AR(1) shocks
 - A shock to labor supply (disutility of work parameter)
 - A sector-specific productivity shock (informal productivity parameter)
- These shocks are reduced-form representations of the impact of COVID-19
 - Very small variance (quite infrequent) \implies do not affect calibration
 - Their persistence (ρ_{new}) reflects uncertainty about future evolution
- Accounting exercise: recover shocks that rationalize the behavior of GDP, interest rate, employment, and informality rate up to 2020.Q3

Accounting for the Pandemic Recession: Shocks Recovered



Simulating the Recovery: Different Scenarios



- We simulate the recovery for two years letting all shocks to dissipate
- Recovery led by the more flexible informal employment (similar to previous recessions)
 - Informality rate quickly rebounds
 - This implies a decline in labor productivity, dragging the recovery in output
- We simulate next the recovery under alternative policies

Policy Options: Summary of Results after Two Years

Policy Instrument	Employment Rate	Informality Rate	GDP	Fiscal Cost % GDP	Size
No Policy Intervention	-1.78	-0.49	-0.76	-	-
Payroll Tax Cut	0.00	-6.95	3.86	6.96	17.8
Hiring Subsidy	0.00	-6.93	3.87	0.26	68.1
Unemployment Benefits	-1.63	-1.11	-0.40	4.60	100.0
Informal Income Subsidy	0.00	3.46	0.36	3.56	9.2

- 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
- Unemployment benefits have very little impact on 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, perfect risk-sharing
 - 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