

*Income instability during a period of improving
labor and social conditions:*

Latin America in the 2000s

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...in a nutshell...

Background & Topic

Latin America in the 2000s:

- ▶ Growth and positive social and labor market conditions

This paper analyzes intragenerational income mobility during this period

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This paper analyzes intragenerational income mobility during this period

Main Findings

- ▶ high mobility (especially of low-skilled households)
- ▶ considerable amount of households experienced downward mobility

Motivation & Contribution

H_0 : Improvement of social and labor market conditions should lead to lower income insecurity or upward mobility

New insights decomposing total mobility between

- ▶ upward and downward mobility
- ▶ income sources (labor vs. non-labor income)
- ▶ skill levels

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Contribution to the literature about income instability in developing countries; especially because of its comparative perspective.

Background

Growth 3.7 % annual average rise of GDP p.c. between 2003 and 2008, 1.8 % between 2009 and 2015

Employment regional unemployment rate fell from 11.2 to 6.6 % (2003–2015)

Social conditions wage-earners covered by social security rose from 67.6 to 79.4 % (2000–2015)

Poverty proportion of poor persons fell from 43.9 to 29.2 % (2002–2015)

Countries under analysis:

Argentina, Brazil, Costa Rica, Ecuador, Mexico, Paraguay, Peru

Data

Household surveys carried out by national statistical institutes following *rotating sample scheme*

Sample:

- ▶ Households with at least two subsequent observations
- ▶ Only urban areas considered

Method

Per-capita relative movement index (Fields and Ok, 1999)

$$m_n^* = \frac{1}{n} \sum_{i=1}^n |\ln(y_2^i) - \ln(y_1^i)|$$

Coefficient of variation between the two observations

$$CV_i = \frac{\sigma_i}{(y_1^i + y_2^i)/2} \longrightarrow CV = (\sum_{i=1}^n CV_i)/n$$

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Disaggregation

(1) **Counterfactual analysis** to quantify the effect of labor (y^l) and non-labor (y^n) income mobility on average mobility of total household income

e.g. the effect of mobility in y^n on total mobility

Period 1: $y_1 = y_1^l + y_1^n$ observed total household income

Period 2: $y_2^* = y_1^l + y_2^n$ simulated total household income

(2) **Mobility of each single income source calculated separately**

Results

m Total income: 0.40 (ARG) – 0.51 (ECU, PER)
Labor income: 0.34 (BRA) – 0.77 (MEX)

CV Total income: 0.29 (ARG) – 0.35 (ECU, PRY)
Labor income: 0.38 (BRA) – 0.69 (MEX)

- ▶ highest instability in countries with larger proportion of precarious jobs and lower pension coverage
- ▶ instability higher than in developed countries
- ▶ 47-51 % of households register a fall of total income
 - ▶ 27-33 % register a loss of > 20 % of their income
 - ▶ in all countries and income concepts (except labor incomes in MEX) more upward than downward mobile households

Results

Heterogeneous profiles of income mobility

	Total Household income				
	Argentina	Costa Rica	Ecuador	Paraguay	Peru
THE WHOLE PERIOD					
m index according to schooling					
<i>Average</i>	0.39	0.44	0.50	0.49	0.51
Low	0.42	0.47	0.52	0.54	0.55
Medium	0.37	0.45	0.48	0.39	0.51
High	0.34	0.38	0.49	0.42	0.44
CV index according to schooling					
<i>Average</i>	0.29	0.31	0.34	0.34	0.34
Low	0.30	0.33	0.35	0.38	0.36
Medium	0.27	0.29	0.33	0.28	0.34
High	0.25	0.26	0.33	0.3	0.29
Proportion of downward movements according to schooling (%)					
<i>Low</i>	36	37	37	45	39
Medium	36	36	37	34	41
High	37	38	38	38	40

Results

Mobility by income source and labor events (CV)

	TOTAL						
	Argentina	Brasil	Costa Rica	Ecuador	Mexico	Paraguay	Perú
<i>Panel A</i>							
Non labor incomes	0.11		0.11	0.12		0.18	0.10
Pensions	0.06		0.04	0.03		0.04	0.02
Other non labor incomes	0.07		0.08	0.10		0.15	0.09
Labor incomes	0.24	0.37	0.26	0.31	0.76	0.39	0.31
Change en wages	0.20	0.12	0.22	0.25	0.33	0.29	0.22
Change in labor status	0.20	0.27	0.20	0.31	0.37	0.50	0.22
Total household income	0.29		0.31	0.34		0.49	0.33
<i>Panel B</i>							
Non labor incomes	0.45		0.40	0.63		0.49	0.45
Pensions	0.34		0.30	0.57		0.20	0.30
Other non labor incomes	0.73		0.45	0.70		0.55	0.46
Labor incomes	0.39	0.37	0.40	0.42	0.68	0.48	0.41
Change en wages							
mobility	0.21	0.15	0.24	0.28	0.36	0.30	0.27
% of changes experiencing event	60.4	63.2	58.8	58.1	39.1	41.5	44.0
Change in labor status							
mobility	0.61	0.73	0.56	0.54	0.84	0.67	0.45
% of changes experiencing event	39.6	36.8	41.1	41.9	60.9	58.5	56.0
Total household income	0.29		0.31	0.34		0.49	0.33

Conclusions

- ▶ Large number of income rises, but also of downward mobile households
→ income instability is a problem; even in a good macroeconomic environment and employment growth period
- ▶ Income insecurity linked to changes in employment status
→ occupational instability still characterizes Latin American labor markets
- ▶ Highest instability among low-skilled households

Policy recommendation to mitigate the effects of income instability

- ▶ reinforce the formalization process
- ▶ extend coverage of cash transfer programs

Context

Findings in line with other studies on income mobility in Latin America

- ▶ Fields et al. (2007): converging mobility patterns
- ▶ Ferreira et al. (2013): high intragenerational mobility
- ▶ Cuesta et al. (2011): high unconditional immobility, but large country-differences and heterogeneous effects by demographic characteristics

General Remarks

1. Conceptual distinction between *instability* and *mobility*
 - ▶ *m* is decomposable: changes due to growth vs. changes due to transfers
2. Counterfactual analysis is a valuable approach, but is it the only possible one?
 - ▶ Jenkins (2000) decomposes the variance of income into various sources (see also Chen, 2009)
3. Take demographic effects into account!
 - ▶ How much of the mobility is driven by children leaving the household or starting to work?
4. Role of institutions is of particular importance.
 - ▶ Cross-country setting allows you to evaluate institutional characteristics associated with certain mobility patterns (see e.g. Van Kerm, 2004)

Specific Remarks

1. Panel attrition

- ▶ Test the characteristics of your sample vs. the whole sample or households taking part in only one survey wave

2. Households with *zero* income

2.1 move away from measures using *log*

- ▶ already addressed applying the CV, but give us some justification.

2.2 code $y = 0$ to $y = 1$ (could lead to non-robust results!)

2.3 use the hyperbolic sine transformation $\log(y_i + (y_i^2 + 1)^{\frac{1}{2}})$ (see Burbidge, Magee and Robb, 1988)

see also Jäntti and Jenkins (2005) “Methods for summarizing and comparing wealth distributions”

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*Thank you for your attention!
I hope my comments can be useful.*