Instituto Interdisciplinario de Economía Política de Buenos Aires (IIEP-BAIRES)

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Labor market institutions and the distribution of wages in Latin America. The role of Minimum Wage

Roxana Maurizio

Instituto Interdisciplinario de Economía Política (IIEP)

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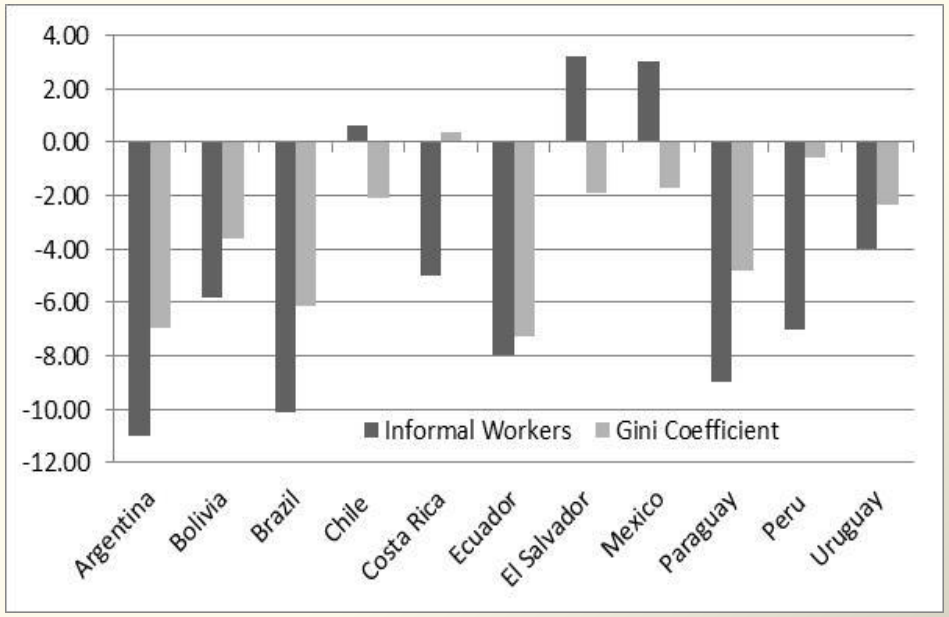
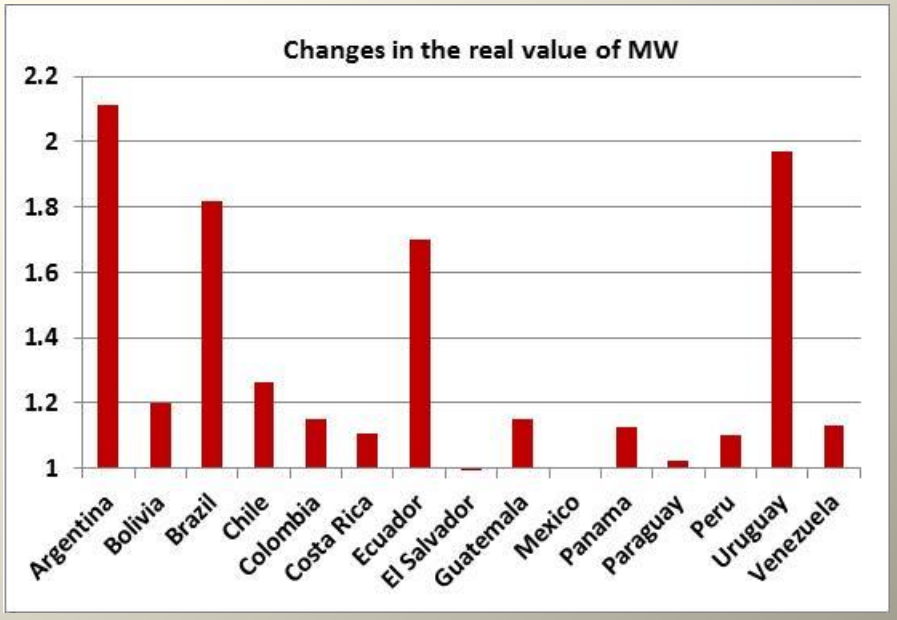
Inequality decline, labor formalization and recovery of MW in LA during the 2000s





Inequality continues to be a distinctive characteristic of LA. However, there was a widespread reduction over the 2000s. It is in sharp contrast with the nineties and with other regions of the world. Labor formalization.

Recovery of the MW in several Latin American countries. Labor institution present in all LACs.

Overview of minimum wage systems in LACs

All Latin American countries have a legal minimum wage.

There is not a common minimum wage system.

Diversity of goals, wage setting mechanisms and interactions with collective bargaining.

	Single or multiple MWs		Coverage		Adjustments	
COUNTRY	**Single**	**Multiple**	**All wage-earners**	**Exclusions**	**Frequency**	**Set by…**
Argentina	X			Private sector	Discretionary changes	National government
Brazil	X		X		Annually. Rate of inflation plus the GDP growth	National government
Bolivia	X		X		Annually	National government
Chile		2		Workers under 18 and over 65 have a lower MW (75%).	Annually	National government
Colombia	X			Private sector	Annually	Tripartite committee
Costa Rica		23 (by occupation or industry)		Private sector. Dom. workers have a lower MW.	By-annually	Tripartite committee
Ecuador	X			Private sector	Annually	National government
Mexico	X			Private sector	Annually	Minimum Wage Commission
Peru	X			Private sector, excluding domestic services	Discretionary changes	National government
Uruguay		3		Private. Rural and domestic workers have a MW higher than the general MW.	Discretionary changes	Tripartite committee

Why does the minimum wage could have inequality-reducing impacts?

- Wages of workers that would be below the MW in its absence, under the functioning of MW they will concentrate around its value, thus generating wage compression.

- Impacts could be lower if MW is used as a *numeraire* (where the MW is used as a reference higher up in the wage distribution). However, if this spill-over effects are verified at a decreasing rate, the positive impacts could be enhanced.

- If the MW affects formal workers only, increases in its value could generate wage compression within this group but, at the same time, could increase the wage gap between formal and informal workers. However, if the "**lighthouse**" effect is verified (where MW is used as a benchmark for what is considered fair wages), positive impacts could be even higher.

Why does the minimum wage could have inequality-reducing impacts?

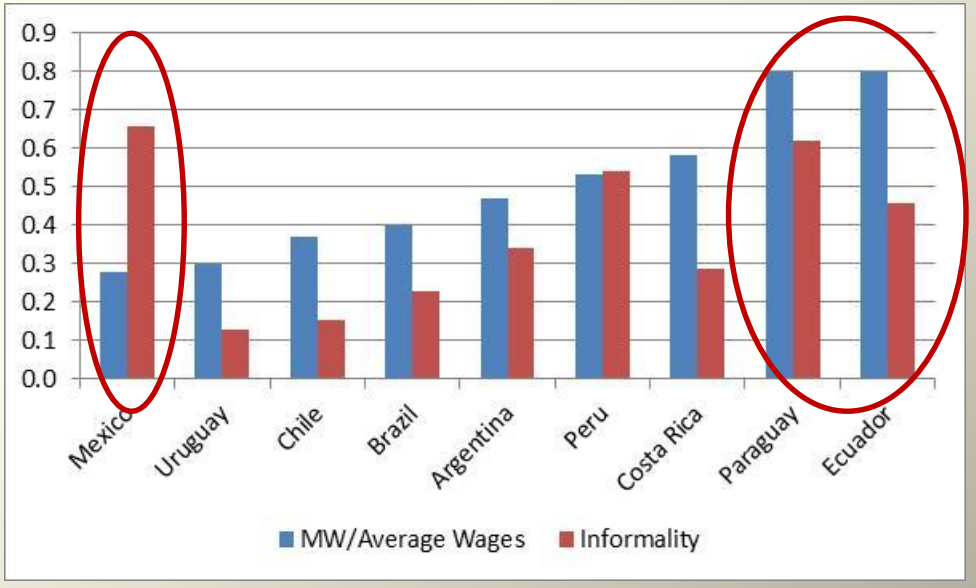
- If wages constitute an important share of total household incomes, MW could also reduce poverty.

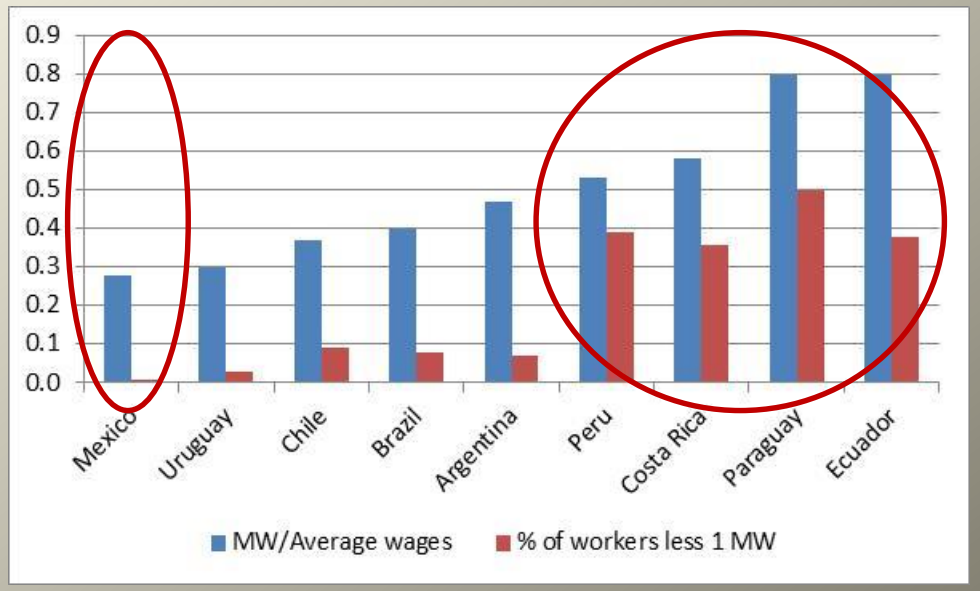
- Potential disemployment effect.
  - **Under competitive labor market model**, MW above the equilibrium wage generates a reduction in labor demand. The intensity depends on the price elasticity of labor demand.
  - **Under monopsonistic** labor market models (Manning, 2003; Dickens et al., 1998) or **efficiency wages** models there is the possibility of positive impacts on the labor demand. Therefore, rather than automatically reducing employment, an increased MW can generate mixed outcomes.

Given the existence of different arguments, the direction of the impact is an empirical matter.

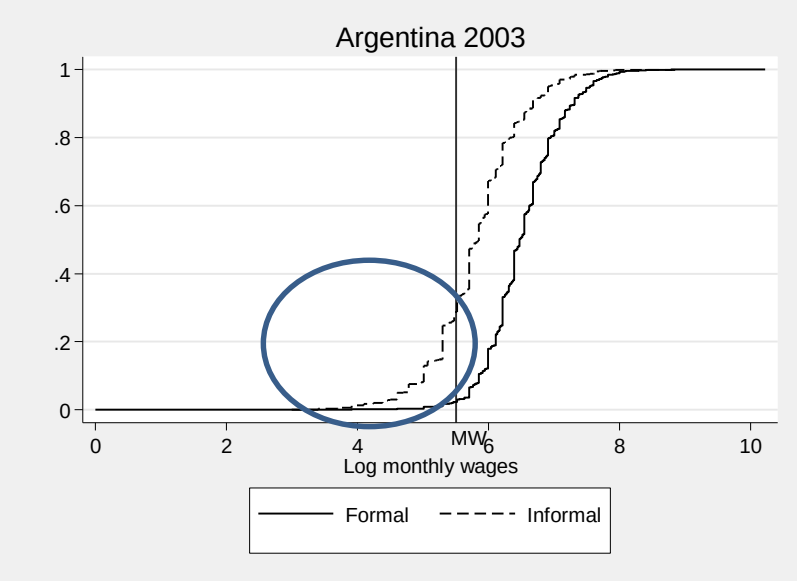
Relative level of MW and compliance

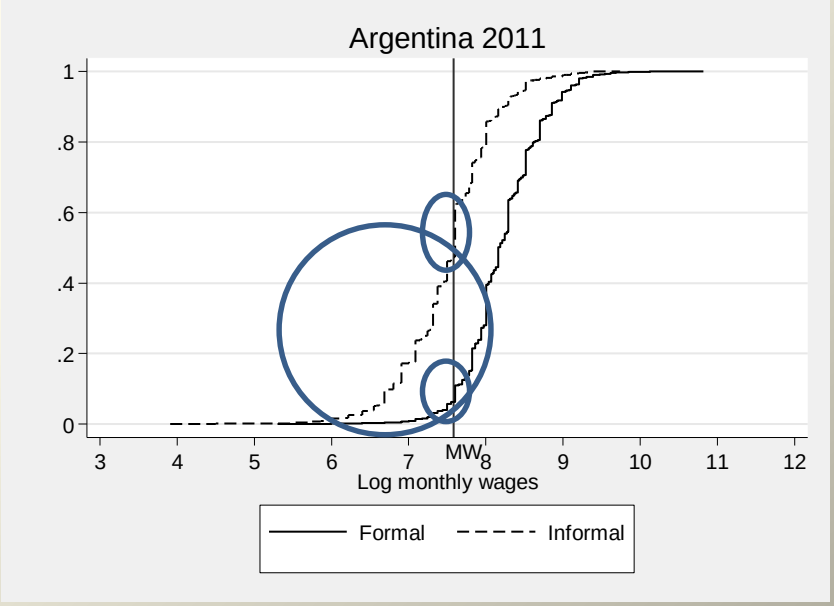
	MW/Average wages
Mexico	**0.3**
Uruguay	**0.3**
Chile	**0.4**
Brazil	**0.4**
Argentina	**0.5**
Peru	**0.5**
Costa Rica	**0.6**
Paraguay	**0.8**
Ecuador	**0.8**

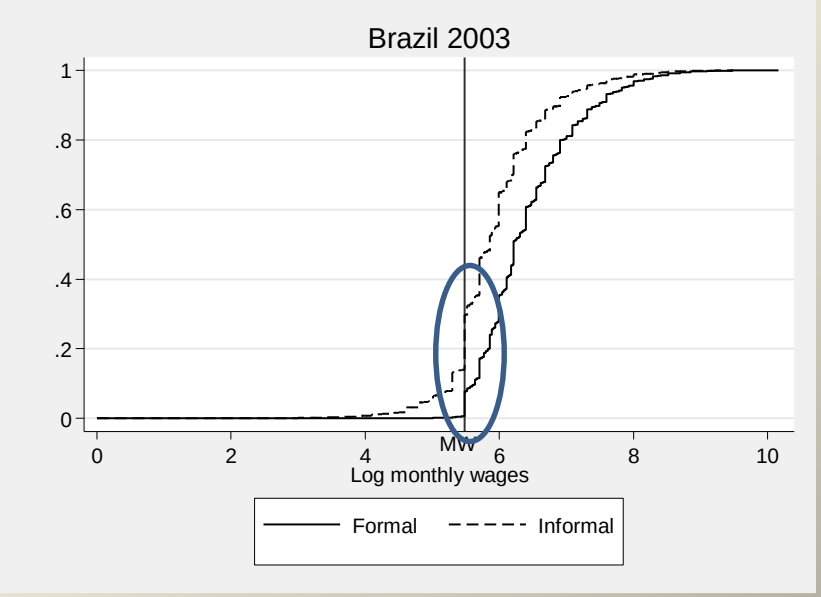


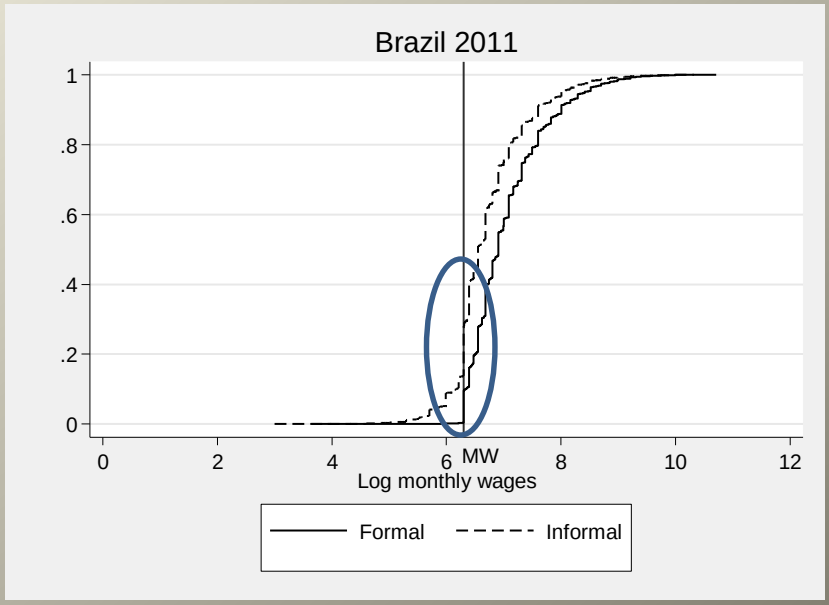


Evolution of MW compliance









Distribution impacts of minimum wages in Latin America

COUNTRY	STUDY	RESULTS
Brazil	Lemos (2009)	MW causes a strong wage compression for both the formal and informal sectors.
	Neri et al. (2000)	Two "informal effects" of the MW: 1. High % of informal workers receiving one MW. 2. The use of the MW as a numeraire, especially in the formal sector.
	Fajnzylber (2001)	Spill-over effects
Argentina and Brazil	Keifman and Maurizio (2012)	Equalizing effects in Argentina and Brazil.
Mexico	Bosch and Manacorda (2010)	The fall of the MW between 1989-2001 was the main cause of the increase in inequality at the bottom end of the distribution.
Costa Rica	Gindling and Terrell (2004)	No "lighthouse" effect. The increase in MW only increases the wages in the urban formal sector but do not have an impact on wages in the uncovered sector.
	Gindling et al. (2013)	In 2010 the government implemented a program to increase compliance with MW. It generated increases in wages of women, young and less skilled workers.
Uruguay	Amarante et al. (2009)	Equalizing effects of the increase of MW between 2004 and 2006.
Nicaragua	Alaniz et al. (2011)	Neither spill-over nor "lighthouse" effects. Increases in MW only lead to significant increases in the wages of private covered sector workers who have wages within 20% of the MW before the change. Increases in MW increase the probability that a poor worker's family will move out of poverty.
Developing countries including Brazil and Mexico	Rani and Ranjbar (2015)	Stronger effect in the informal than formal sector. Positive effects but at a declining rate throughout the wage distribution.
Latin American countries	Maloney and Nunez (2003)	Numeraire effects in the formal sector and lighthouse effects in the informal sector.
19 Latin American and Caribbean countries	Kristensen and Cunningham (2007)	Equalizing impacts of minimum wages on formal and informal wage distribution in several countries. MW has impacts throughout the wage distribution.

Increasing number of studies on the recent evolution of MW in LA countries

MW has a more positive effect on wages of workers at the bottom than the top tail of the wage distribution, implying a equality-enhancing role.

In same countries, lighthouse and spill-over effects.

Methodology of estimate distributive impacts

Estimate of counterfactual density functions (DiNardo et al., 1996). It is based on the estimate of counterfactual density functions to evaluate how would have the initial wage distribution been if, keeping the attributes of workers constant, the real minimum wage was that of the final moment.

ACTUAL INICIAL DISTRIBUTION	COUNTERFACTUAL INICIAL DISTRIBUTION	ACTUAL FINAL DISTRIBUTION
MW at t=0	MW at t=1	MW at t=1
Employment composition at t=0	Employment composition at t=0	Employment composition at t=1

Maurizio, R. and G. Vázquez (2016) "Distribution effects of the minimum wage in four Latin American countries: Argentina, Brazil, Chile and Uruguay", **International Labour Review**, vol. 155, issue 1

Distributive impacts of the MW: Argentina

Statistics	Initial year	Counterfactual	Final year	Absolute variations	Relative variations	Percentage of total change explained by MW
Mean	749.317	782.446	1030.508	33.129 ***	4%	12%
	15.635	16.226	12.321	4.165		
90-10	5.000	4.097	3.750	-0.903 *	-18%	72%
	0.317	0.226	0.143	0.348		
50-10	2.143	1.756	2.000	-0.387 ***	-18%	271%
	0.118	0.081	0.000	0.141		
90-50	2.333	2.333	1.875	0.000	0%	0%
	0.078	0.075	0.071	0.059		
Gini	0.373	0.347	0.293	-0.026 ***	-7%	32%
	0.010	0.011	0.005	0.004		
Theil	0.269	0.241	0.149	-0.028 ***	-10%	23%
	0.034	0.033	0.007	0.004		
Observations	5393	3933	7244			

Distributive impacts of the MW: Brazil

Statistics	Initial year	Counterfactual	Final year	Absolute variations	Relative variations	Percentage of total change explained by MW
Mean	839.919	860.665	1057.641	20.745 ***	2%	10%
	5.489	5.510	6.209	0.519		
90-10	6.667	4.468	5.505	-2.198 ***	-33%	189%
	0.144	0.127	0.000	0.104		
50-10	2.083	1.396	1.835	-0.687 ***	-33%	276%
	0.000	0.000	0.000	0.000		
90-50	3.200	3.200	3.000	0.000	0%	0%
	0.069	0.091	0.000	0.064		
Gini	0.477	0.453	0.449	-0.024 ***	-5%	42%
	0.003	0.003	0.002	0.000		
Theil	0.468	0.437	0.422	-0.030 ***	-6%	66%
	0.007	0.007	0.007	0.001		
Observations	68717	56392	82877			

Impactos distributivos: Ecuador

Estadísticas	Año inicial	Contrafactual	Año final	Variaciones absolutas	Variaciones relativas	Porcentaje del cambio total explicado por SM
Media	277.419	310.490	347.412	33.071 ***	12%	47%
	10.002	9.982	3.831	1.104		
90-10	5.556	3.885	3.321	-1.671 ***	-30%	75%
	0.351	0.157	0.108	0.370		
50-10	2.222	1.800	1.429	-0.422 ***	-19%	53%
	0.139	0.069	0.023	0.152		
90-50	2.500	2.158	2.325	-0.342 ***	-14%	195%
	0.034	0.029	0.069	0.019		
Varianza	0.564	0.338	0.327	-0.226 ***	-40%	95%
	0.022	0.016	0.010	0.017		
Gini	0.442	0.356	0.327	-0.086 ***	-19%	40%
	0.018	0.019	0.005	0.003		
Theil	0.475	0.362	0.215	-0.113 ***	-24%	44%
	0.093	0.084	0.012	0.010		
Observaciones	7395	8522	12923			

Fuente: elaboración propia en base a la EPH-INDEC.

Nota: Errores estándar bootstrap debajo de cada estimación (1500 sub-muestras).

**** p<0.01, ** p<0.05, * p<0.1*

Distributive impacts of the MW: Uruguay

Statistics	Initial year	Counterfactual	Final year	Absolute variations	Relative variations	Percentage of total change explained by
Mean	8012.358	8059.694	11094.225	47.336 ***	1%	2%
	81.766	86.556	57.820	30.573		
90-10	6.000	5.420	4.795	-0.580	-10%	48%
	0.055	0.210	0.089	0.207		
50-10	2.320	2.115	2.055	-0.205 ***	-9%	77%
	0.031	0.083	0.036	0.083		
90-50	2.586	2.562	2.333	-0.023	-1%	9%
	0.036	0.042	0.014	0.024		
Gini	0.422	0.417	0.355	-0.005 ***	-1%	7%
	0.004	0.004	0.002	0.002		
Theil	0.340	0.335	0.218	-0.006 ***	-2%	5%
	0.011	0.011	0.003	0.004		
Observations	11072	9937	22833			

The impacts of minimum wages on employment in Latin America

No overall consensus prevails about employment effects of MW in LACs. Role of the macroeconomic and labor market context

Brazil

- ✓ **Negative**: earlier studies found small negative effects (Foguel, 1998, Foguel et al., 2001; Fajnzylber, 2001; Carneiro, 2001).
- ✓ **No effects**: more recent studies find no effects (Lemos, 2009). Broecke and Vandeweyer (2015) study the period 2003-2014 where MW has nearly doubled and find no effect on jobs.

Chile

- ✓ **Negative**: Montenegro and Pages (2004) find that a 10% increase in the MW decreases the probability of employment for men by 1.7%.
- ✓ ***No direct effects*** (Cowan *et al*. , 2004; Martinez *et al*. , 2001, Miranda, 2013).

Argentina

- ✓ **No impact** on employment during the 2000s (Groisman, 2012)

Mexico

- ✓ **No impact** on employment during the 1990s (Bell, 1997). No impact during the increase of the MW in one of the regions in 2012 (Campos et al. 2015).

Developing countries, including LACs

- Meta-analysis for **Brazil**, **Chile**, China, **Colombia**, India, Indonesia, **Mexico**, the Russian Federation, South Africa and Turkey (Broecke et al., 2015):
  - ✓ MW have very little, or no, effect on employment.
  - ✓ Youth and low-skilled workers are more adversely affected but the impact is small.

Final remarks

- **Potential equalizing role of MW**: Recent research suggests **inequality reducing effects** of MW in LACs. Our results confirm the positive impact of MW on wage distribution of full time salaried workers in Argentina, Brazil, Ecuador and Uruguay. **Contribution to the debate about the causes of reduction of income inequality in LA.**

- The recovery of this institution took place together with **job creation and labour formalization**.

- Policy design matters. It is important to:

✓ Ensure high level of compliance (appropriate measures for effective application)

✓ Set a level that considers the needs of workers and their families and economic factors, including maintaining a high level of employment and low level of inflation.

✓ Create a high level of social dialogue.

- Important potential role of collective bargaining in reducing wage inequality. Coordination between these two labour institutions.

- Even after these positive trends, **LACs continue having a very high proportion of low-wage workers**. Important source of income inequality and poverty. Need of **macroeconomic stability, productive policies and** a **more comprehensive social protection system**.

Thank you!

roxanadmaurizio@gmail.com