



COMMITMENT  
TO EQUITY

# **Taxes, Social Spending and Income Redistribution in Latin America**

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Fiscal Policy, Equity and Long-Term  
Growth in Developing Countries

IMF and World Bank

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## What is CEQ

The Commitment to Equity (CEQ) is a joint project of CIPR and the Department of Economics at Tulane University and the Inter-American Dialogue. Directed by [Nora Lussig](#) and [Peter Halkin](#), the CEQ was designed to analyze the impact of taxation and social spending on inequality and poverty in individual countries, and provide a roadmap for governments, multilateral institutions, and nongovernmental organizations in their efforts to build more equitable societies.

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## RECENT PUBLICATIONS

### New



[CEQ WP13  
An Overview](#)



[CEQ WP7: Brazil](#)



[CEQ WP8: Mexico](#)

## NEWS

[4/1/2013](#): CEQ Working Paper 13, An Overview, is now available, [here](#).

[3/21/2013](#): CEQ Featured at Colombia Equity Day Event

[3/13/2013](#): Brazilian President Dilma Rousseff announced the end of federal indirect taxes on all items in the basic needs basket

SPACE FOR NEWS TO  
CONTINUE GROWING

# CEQ Authors

- Argentina: Nora Lustig and Carola Pessino
- Bolivia: George Gray Molina, Wilson Jimenez, Veronica Paz and Ernesto Yañez
- Brazil: Sean Higgins and Claudiney Pereira
- Mexico: John Scott
- Peru: Miguel Jaramillo
- Uruguay: Marisa Bucheli, Nora Lustig, Maximo Rossi and Florencia Amabile

# Main Questions

- How redistributive are governments in Latin America?
- What explains the differences in redistribution, poverty reduction and effectiveness across countries?
- Method: standard fiscal incidence analysis

# How redistributive are governments in Latin America?

- How much inequality and poverty reduction is being accomplished through social spending, subsidies and taxes?
- How effective and efficient are governments at reducing inequality and poverty?
- Who bears the burden of taxes and receives the benefits from social spending?
- How are the poor and those vulnerable to poverty affected/benefited by taxes and social spending?

# Indicators

- Pre- and post-taxes and benefits inequality (Gini)
- Pre- and post-taxes and cash transfers poverty (headcount for US \$2.50 ppp/day)
- Effectiveness measures
- Fiscal incidence by decile
- Impoverishment: Fiscal mobility matrix

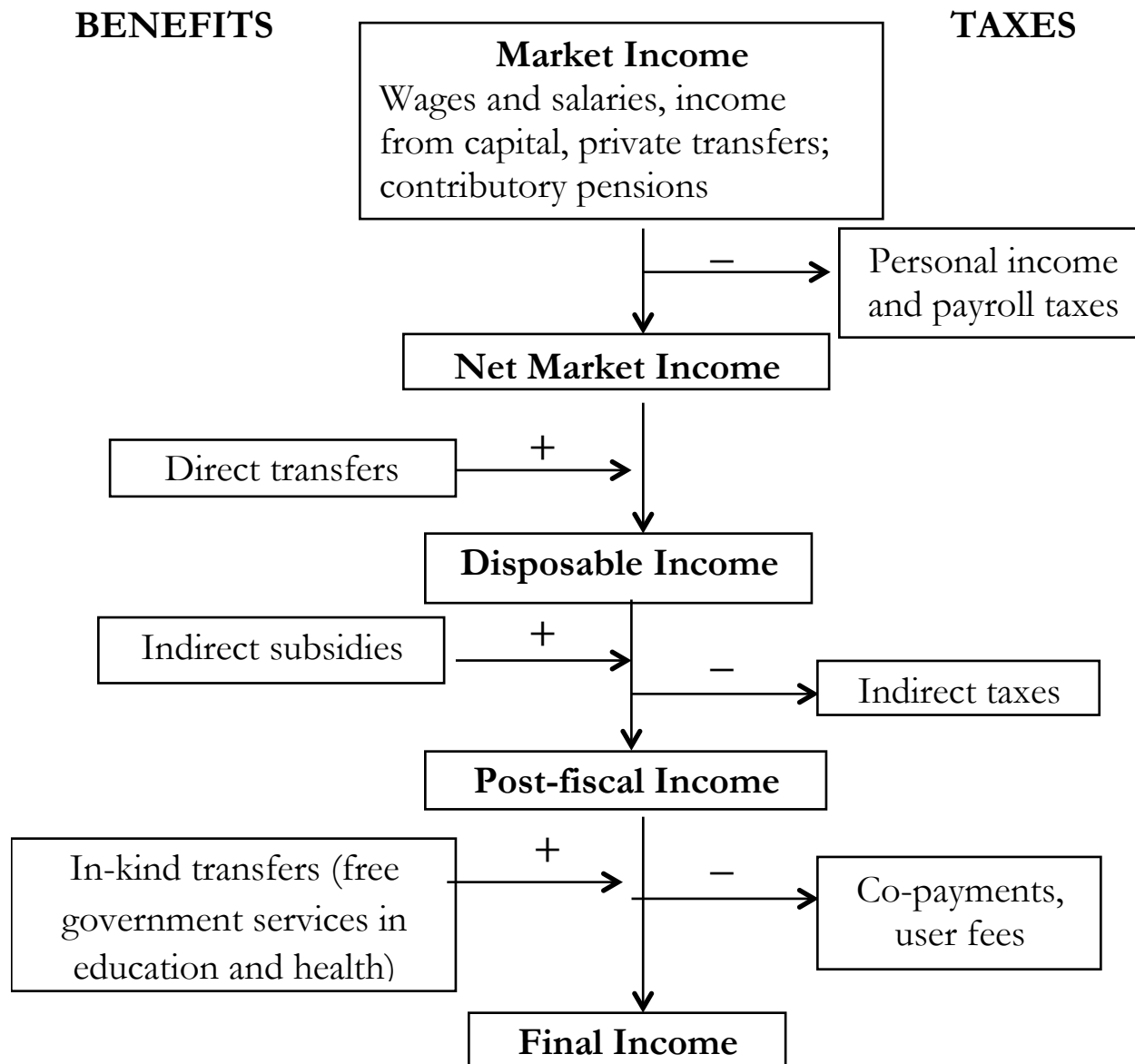
# Standard Fiscal Incidence Analysis

- Pre-tax and benefits incomes
- Allocators of taxes and benefits
  - personal income and consumption taxes
  - social spending: cash transfers and in-kind transfers (education and health)
  - Consumption subsidies
- Post-tax and benefits incomes
- Countries (yr of Survey): Argentina (2003, 2006, 2009), Bolivia (2007), Brazil (2009), Mexico (2008, 2010), Peru (2009), Uruguay (2009), Paraguay (2010)

# **Constructing Income Concepts: Allocation Methods**

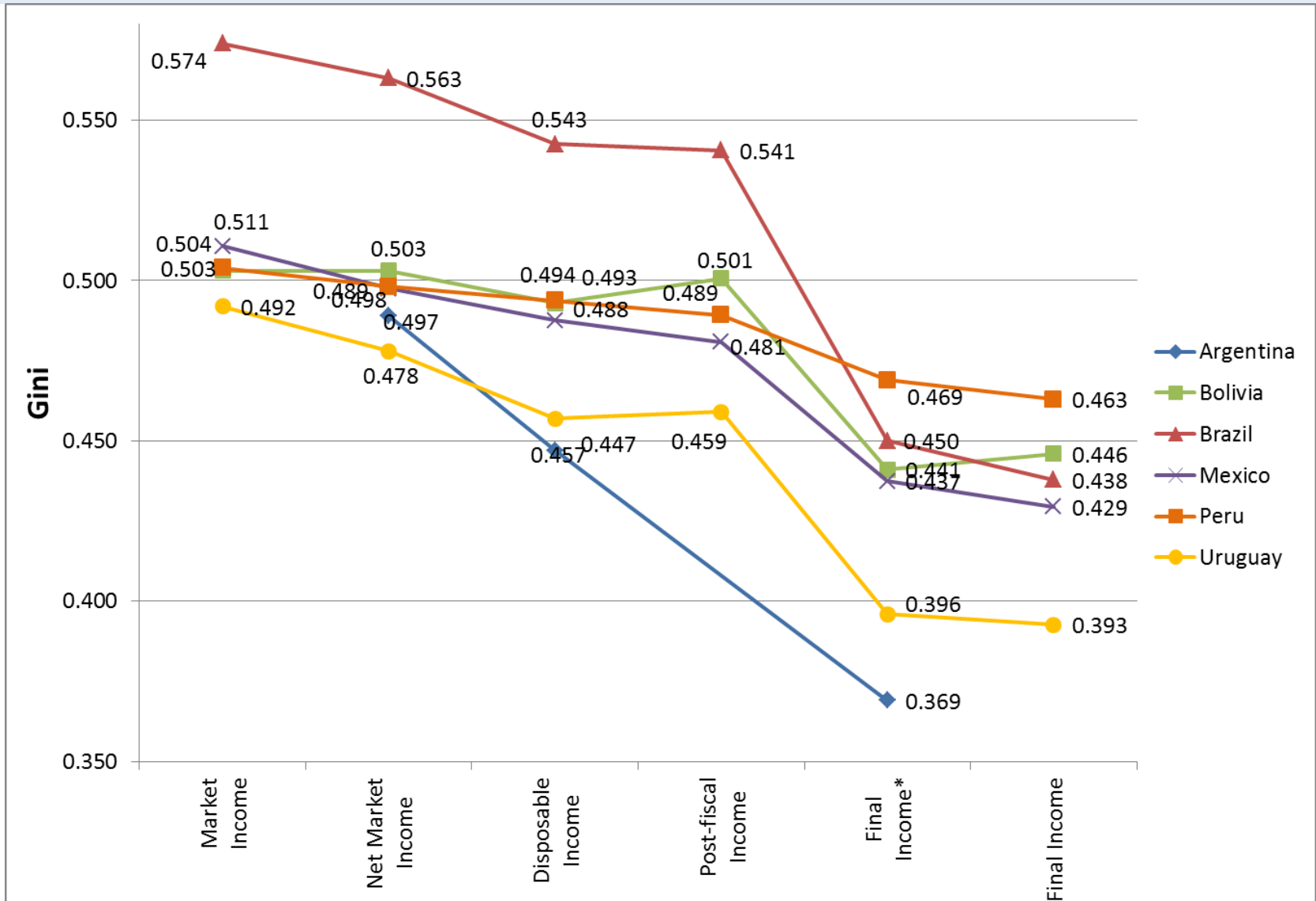
- Direct Identification
- Imputation
- Inference
- Simulation
- Alternate Survey
- Secondary Sources





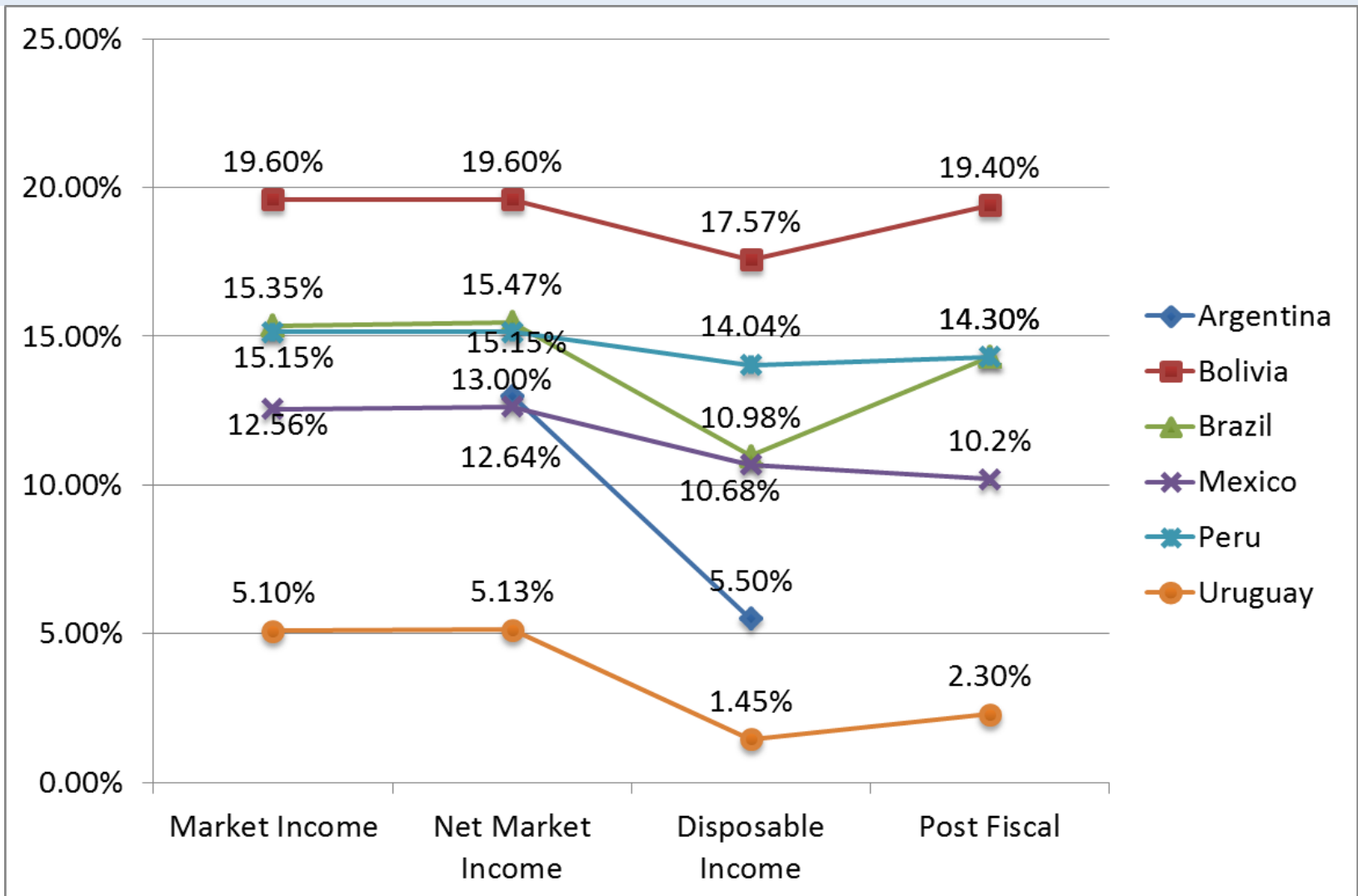
# REDISTRIBUTION

## Tracking the Gini coefficient from Market to Final Income



# POVERTY REDUCTION

## Tracking the Headcount Ratio from Market to Final Income



# How redistributive are governments in Latin America?

- How effective are governments at reducing inequality and poverty?

**Effectiveness Index =**

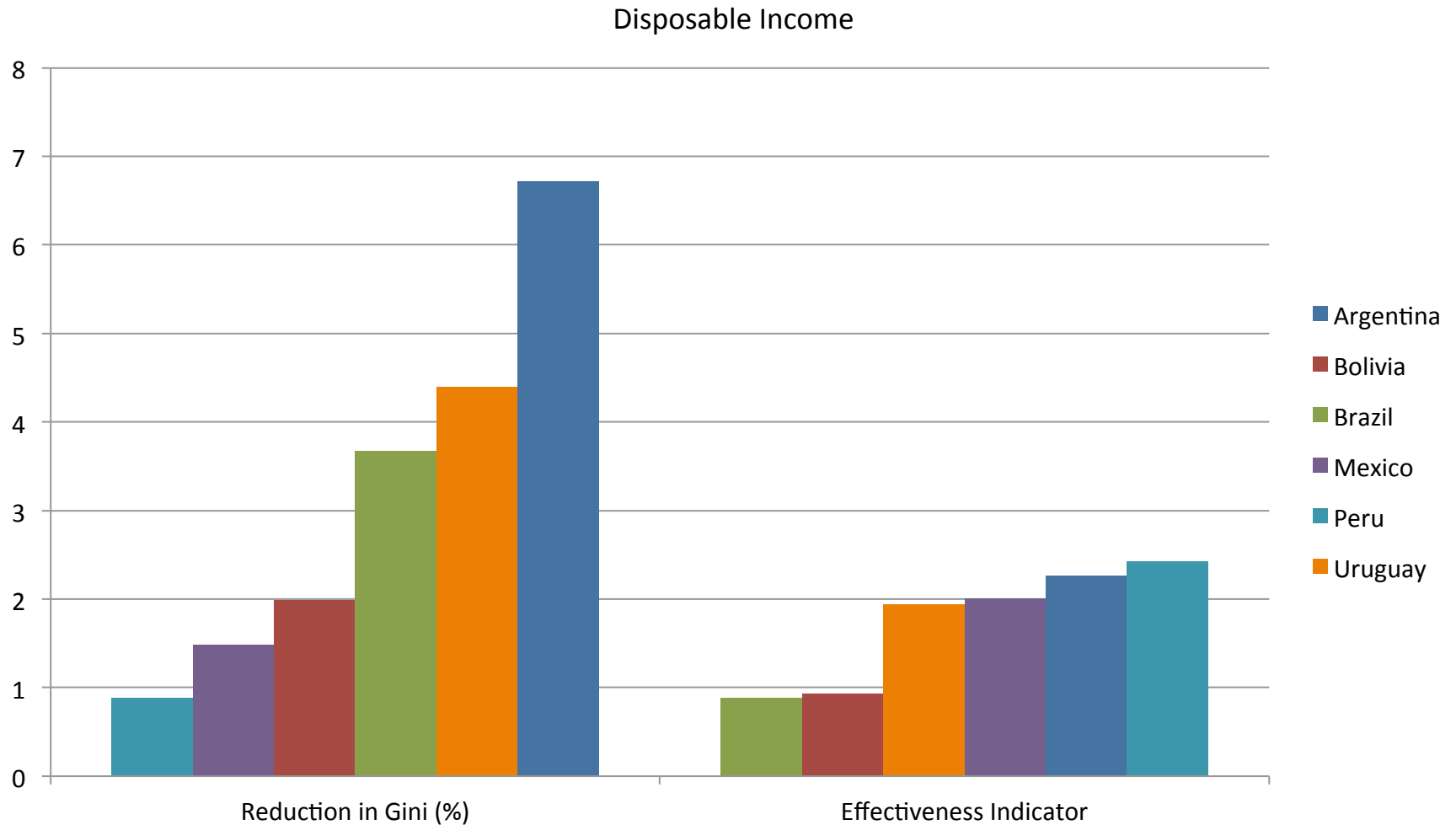
Percentage Decline from Pre-Transfer to Post-transfer Inequality (Poverty)

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Transfer/GDP

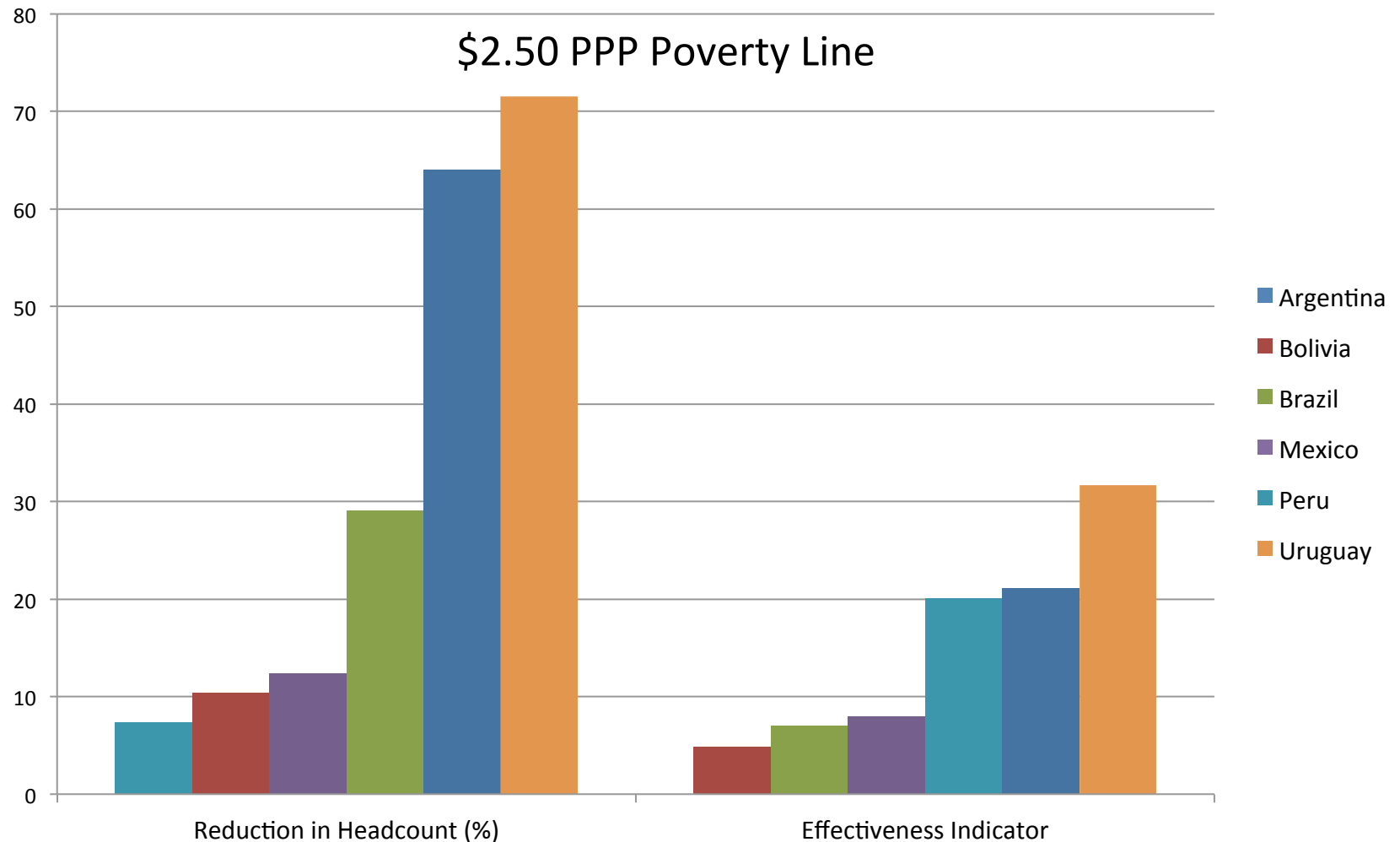
# Effectiveness

## Cash Transfers and Inequality Reduction



# Effectiveness

## Cash Transfers and Poverty Reduction

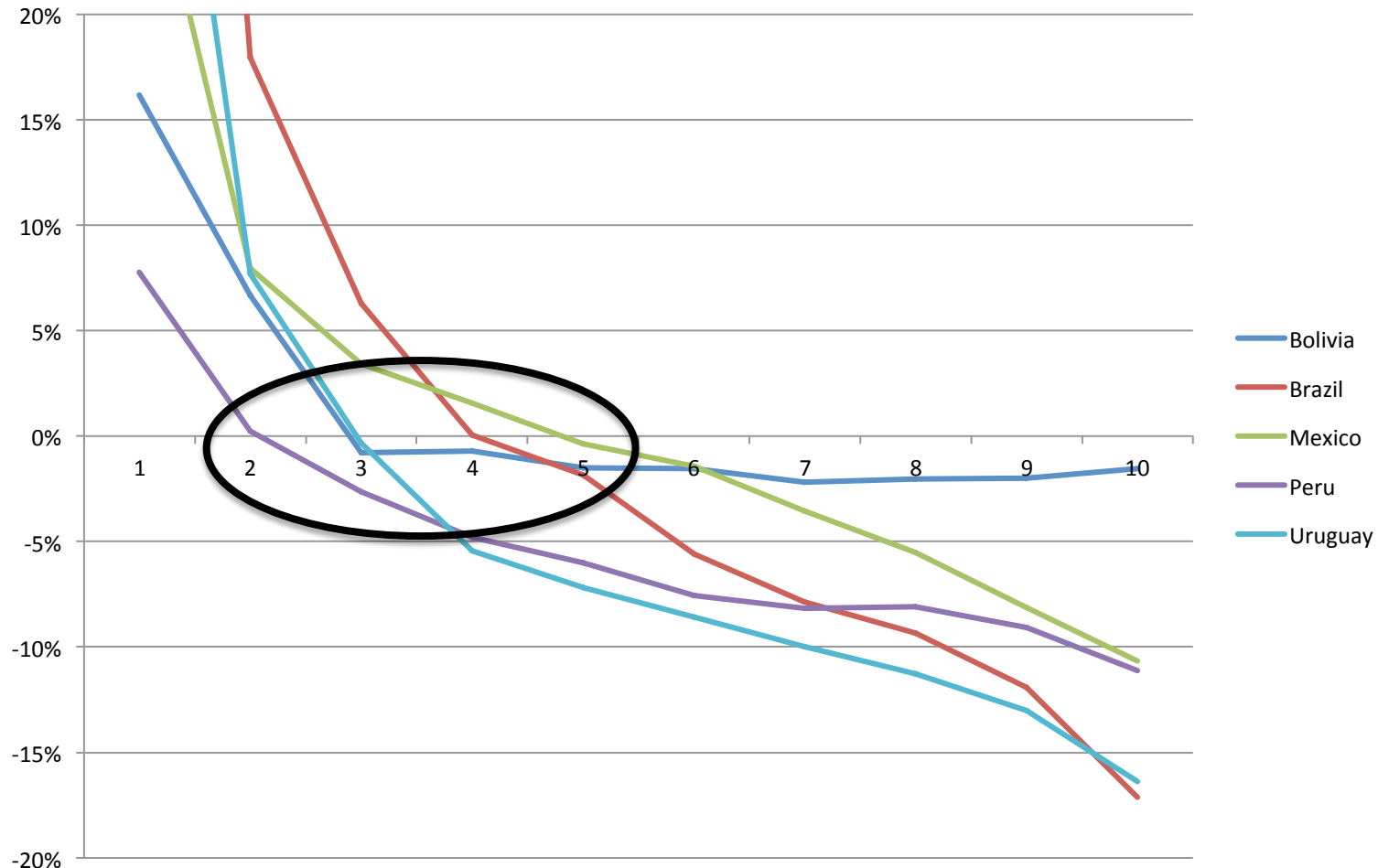


# How redistributive are governments in Latin America?

- Who bears the burden of taxes and receives the benefits from cash transfers?
  - Fiscal incidence by decile
- How are the poor and those vulnerable to poverty affected/benefited by taxes and social spending?
  - Impoverishment: Fiscal mobility matrix

# Incidence of Taxes and Cash Transfers

Net Change in Income after Direct and Indirect Taxes and Transfers  
by Decile





# Impoverishment

## Fiscal Mobility Matrix for Brazil

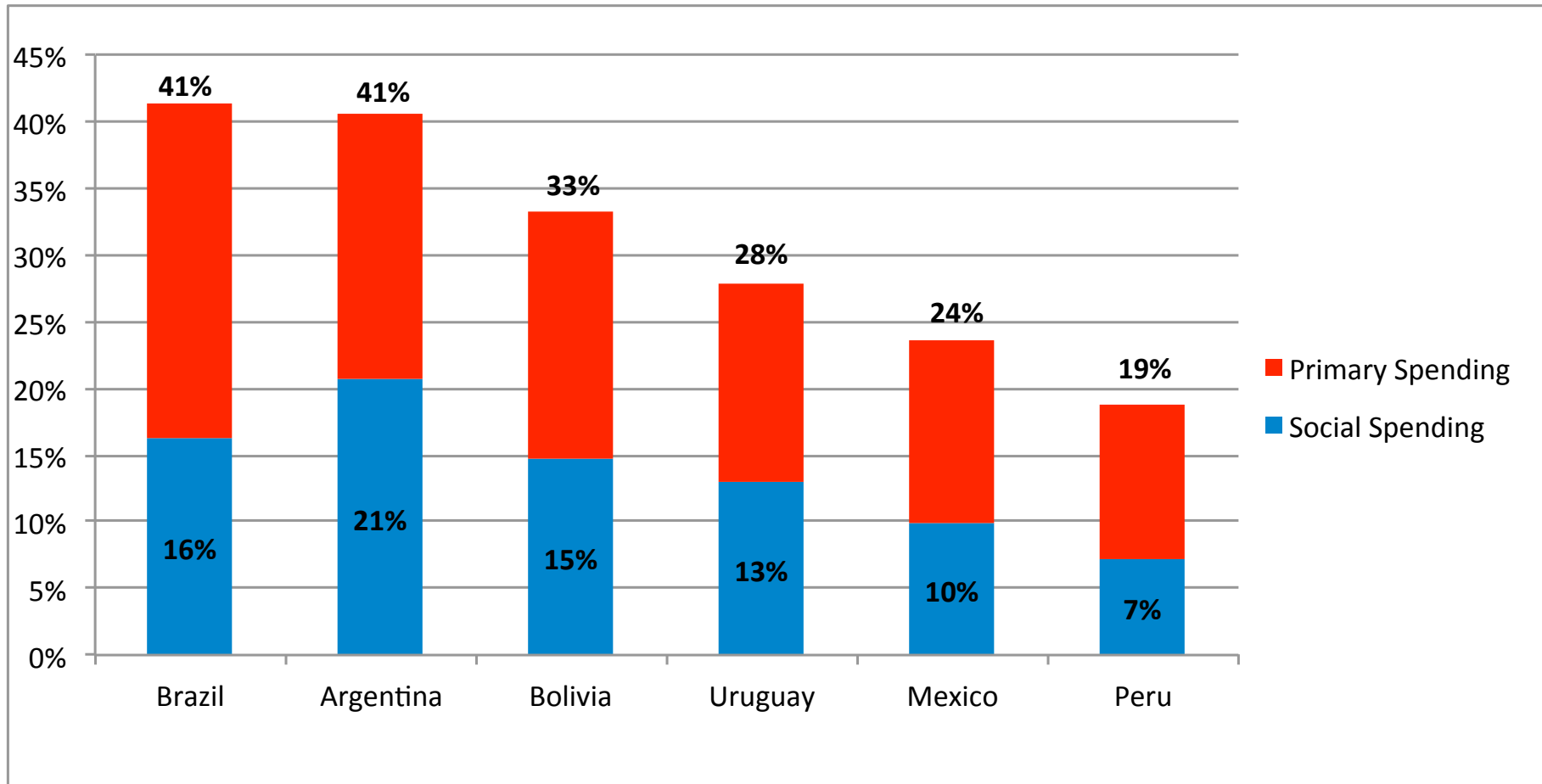
		After taxes and transfers groups						% of Pop.	Mean Income
		< 1.25	1.25–2.50	2.50–4.00	4.00–10.00	10.00–50.00	> 50.00		
Before taxes and transfers groups	< 1.25	69%	21%	6%	3%			5.7%	\$0.74
	1.25–2.50	4%	81%	10%	4%			9.6%	\$1.89
	2.50–4.00		15%	75%	9%	1%		11.3%	\$3.24
	4.00–10.00			11%	86%	3%		33.6%	\$6.67
	10.00–50.00				15%	85%		35.3%	\$19.90
	> 50.00					32%	68%	4.5%	\$94.59
% of Pop.		4.3%	10.7%	13.5%	35.8%	32.5%	3.2%	100%	\$14.15
Mean Income		\$0.86	\$1.91	\$3.25	\$6.61	\$19.34	\$88.70	\$12.17	

# What explains the differences?

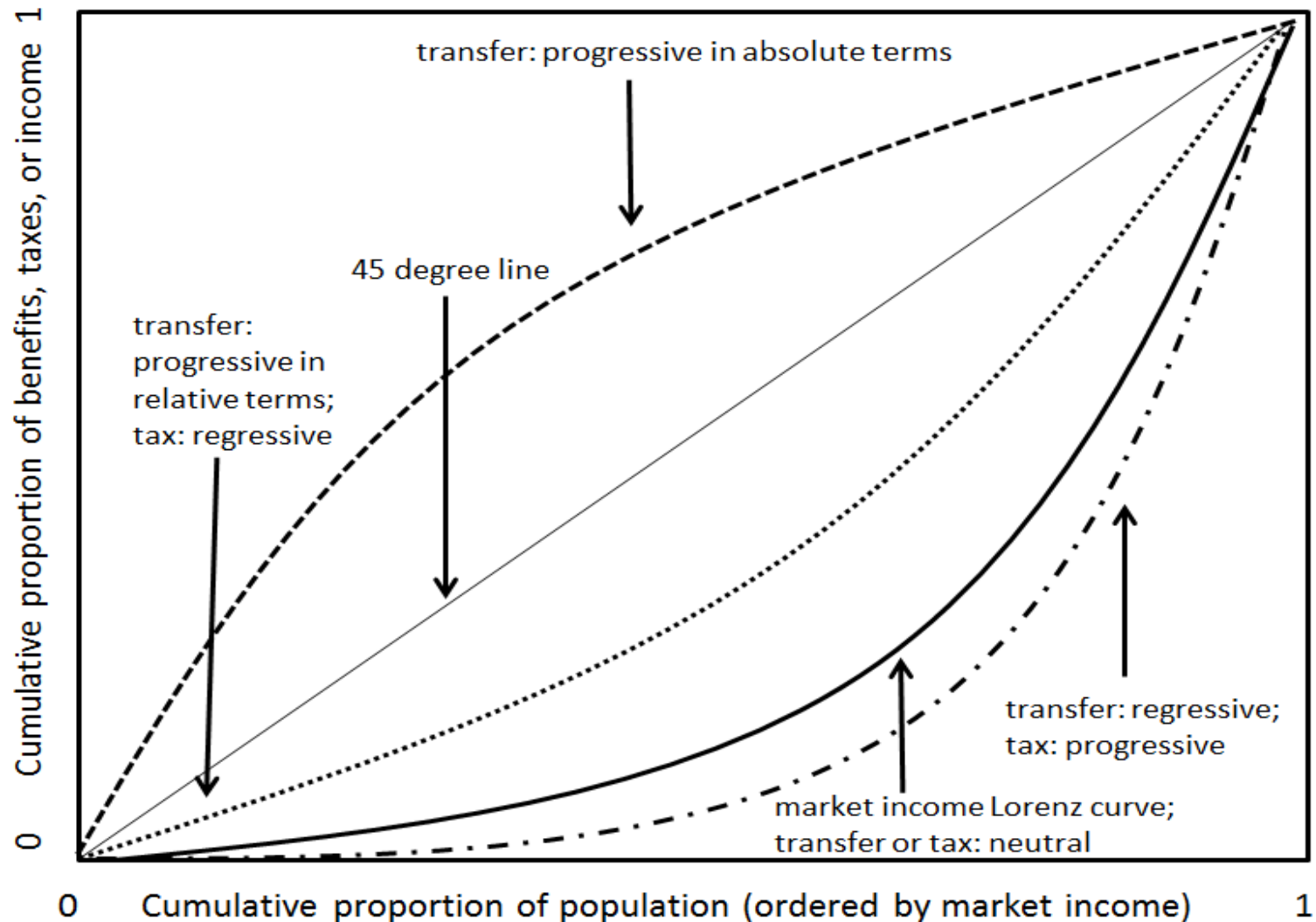
- Budget size
- Progressivity
- Composition
- Leakages, coverage and size of cash transfers

# Budget Size and Composition

## Primary and Social Spending as % of GDP



# Defining Progressive/Regressive Taxes and Transfers

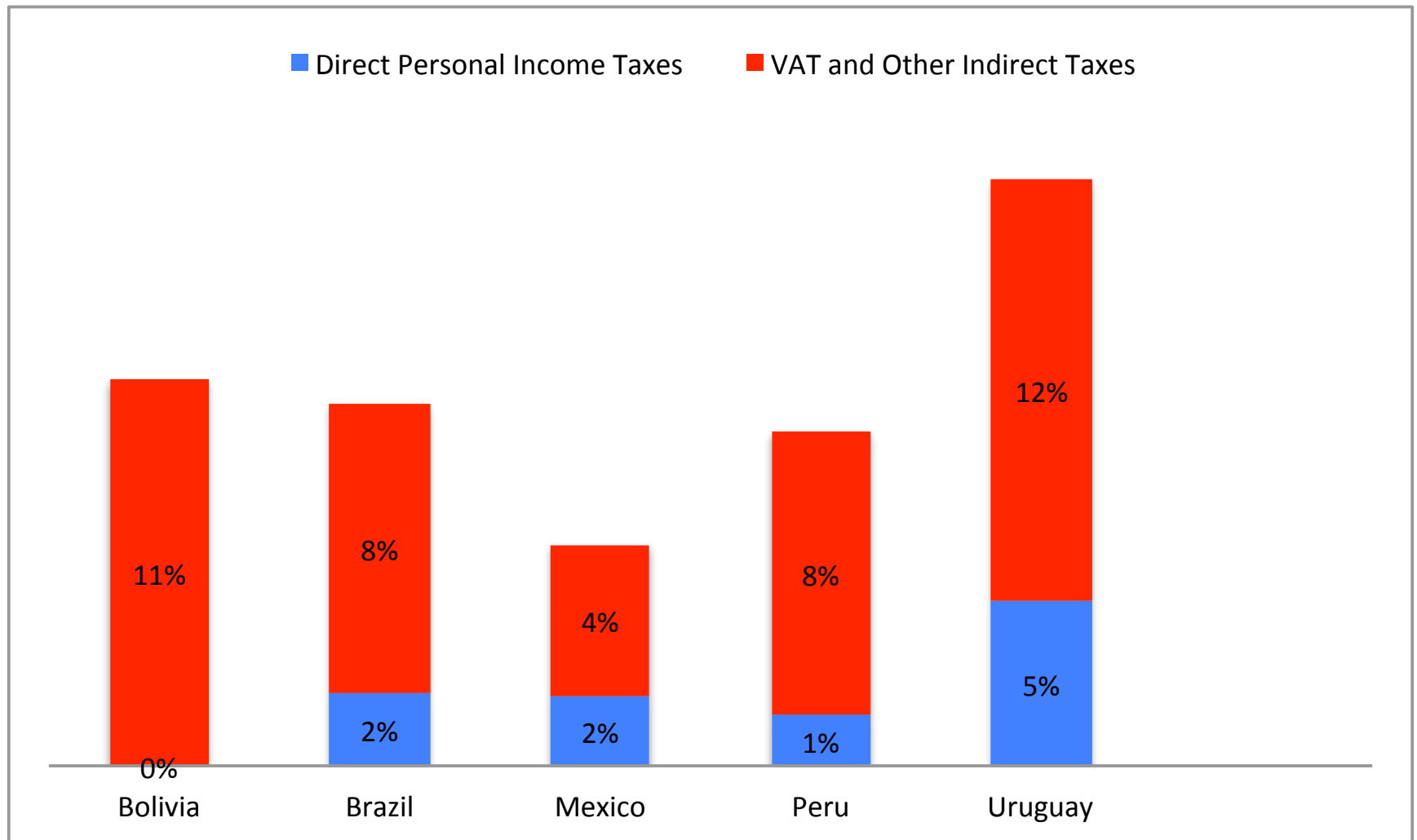


# Progressivity

**Kakwani Index for Taxes: Red= regressive**

	Taxes		
	Direct Taxes	Indirect Taxes	All
Argentina	na	na	na
Bolivia	ne	-0.20	-0.20
Brazil	0.27	-0.03	0.04
Mexico	0.25	0.02	0.12
Peru	0.43	0.05	0.11
Uruguay	0.25	-0.05	0.07

# Direct and Indirect Taxes as % of GDP



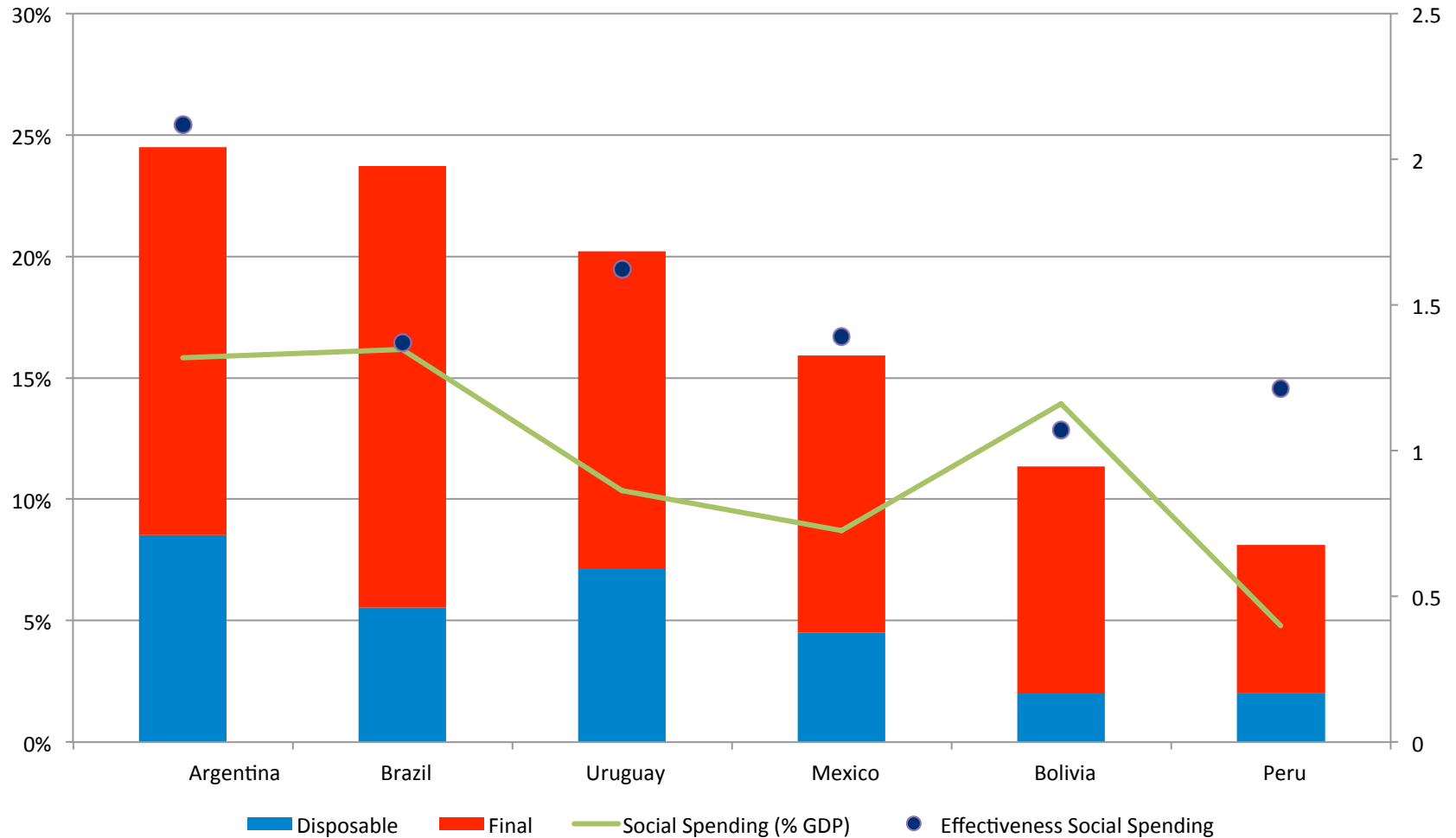
# Progressivity

## Concentration Coefficients for Transfers

Green= progressive in abs terms

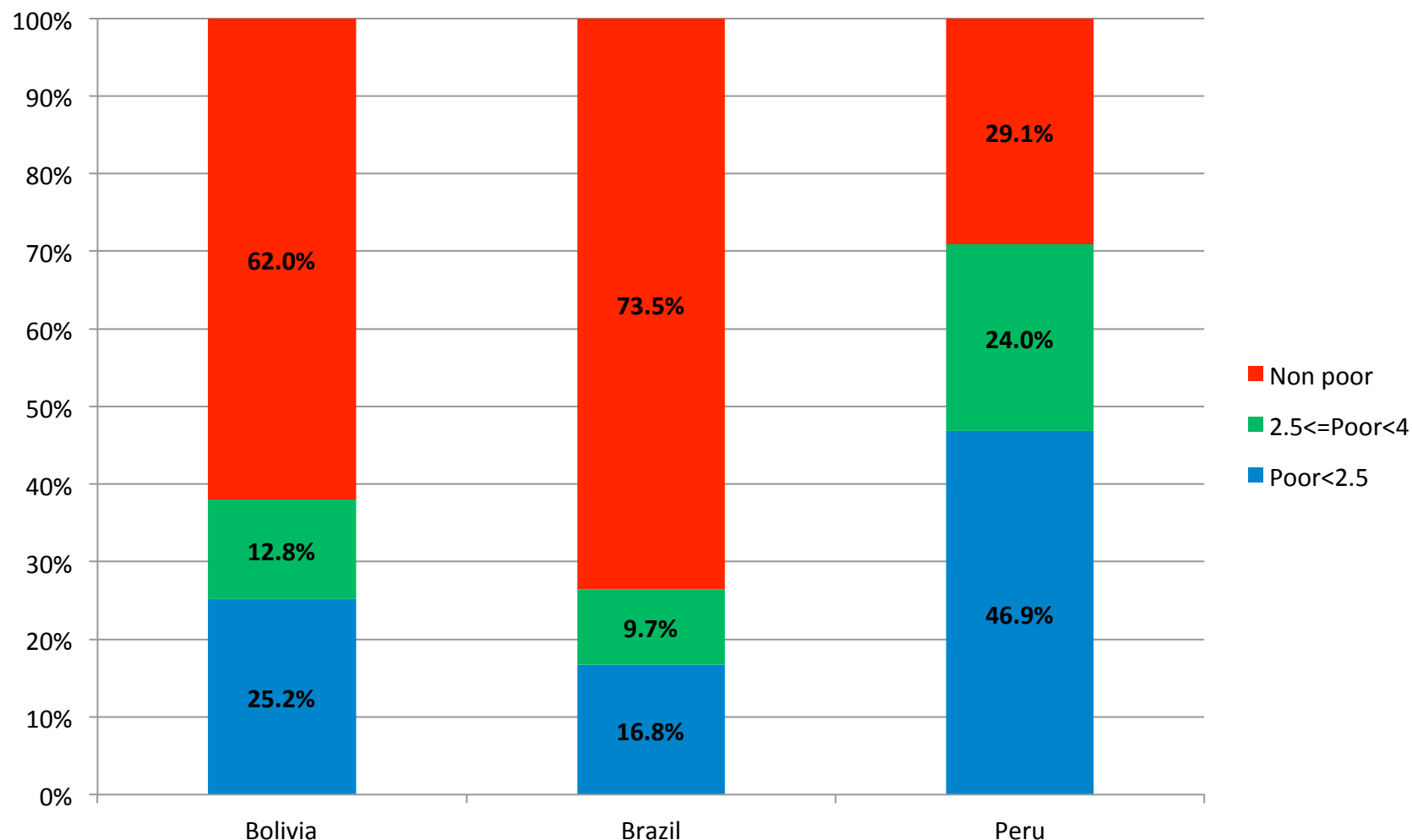
	Direct Transfers	Education	Health	Social Spending
Argentina	-0.31	-0.20	-0.23	-0.15
Bolivia	-0.08	-0.02	-0.04	-0.04
Brazil	0.03	-0.16	-0.12	-0.08
Mexico	-0.30	-0.09	0.04	-0.06
Peru	-0.48	-0.17	0.18	-0.02
Uruguay	-0.47	-0.11	-0.10	-0.16

# Reduction in inequality with respect to Market Income Gini coefficient, Social Spending, and Redistributive Effectiveness

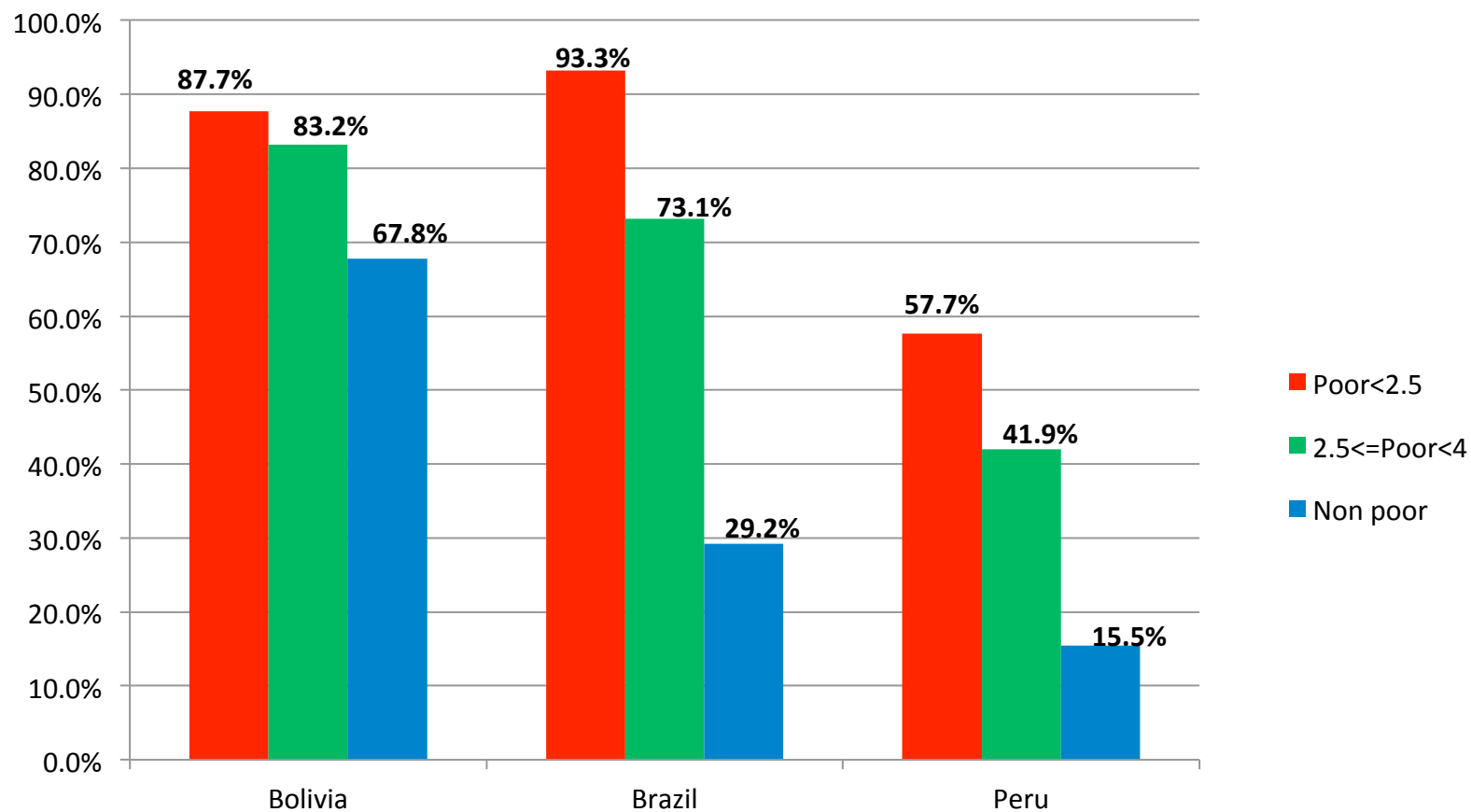




# Leakages of Direct Cash Transfers



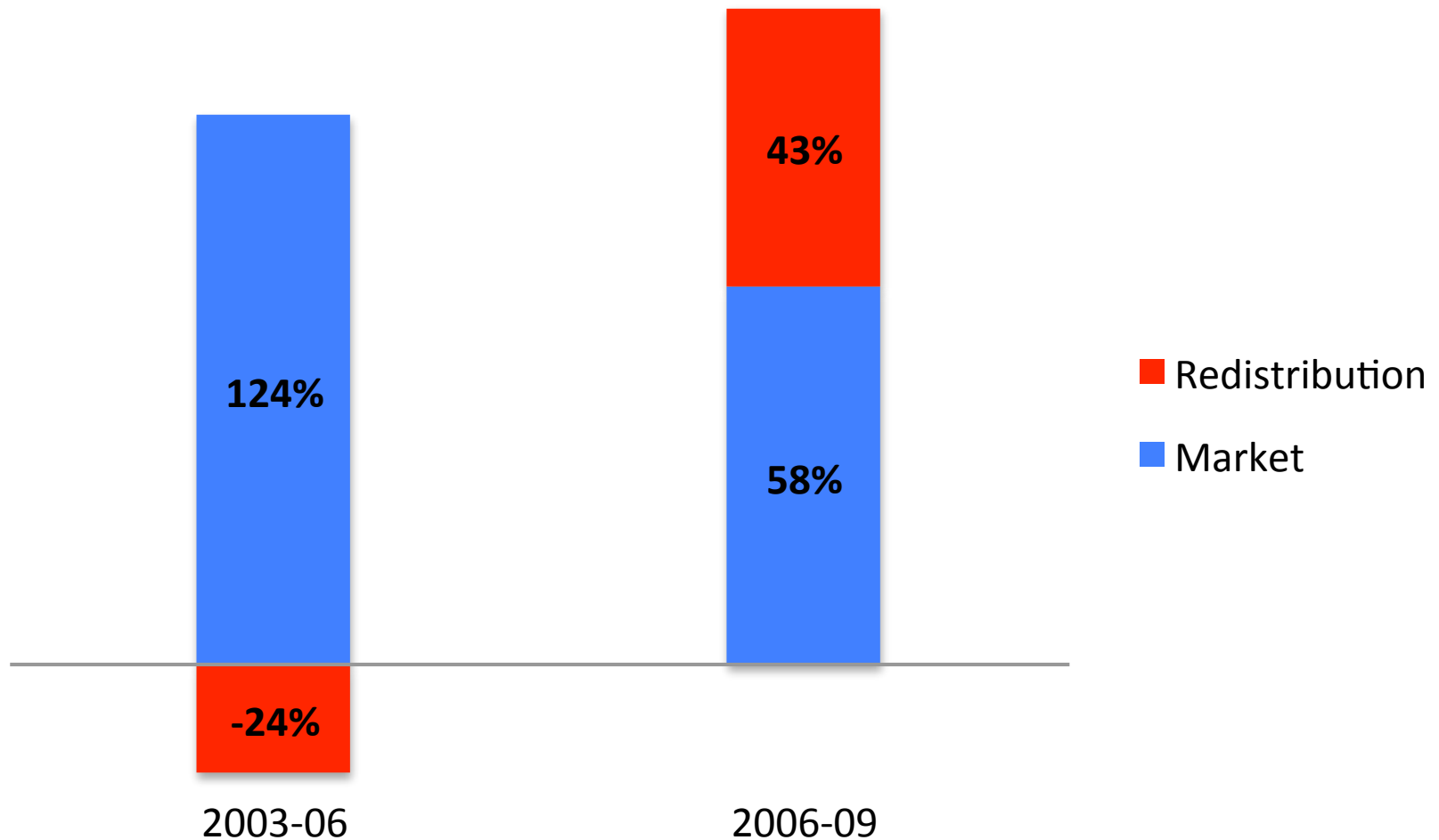
# Coverage of Direct Cash Transfers



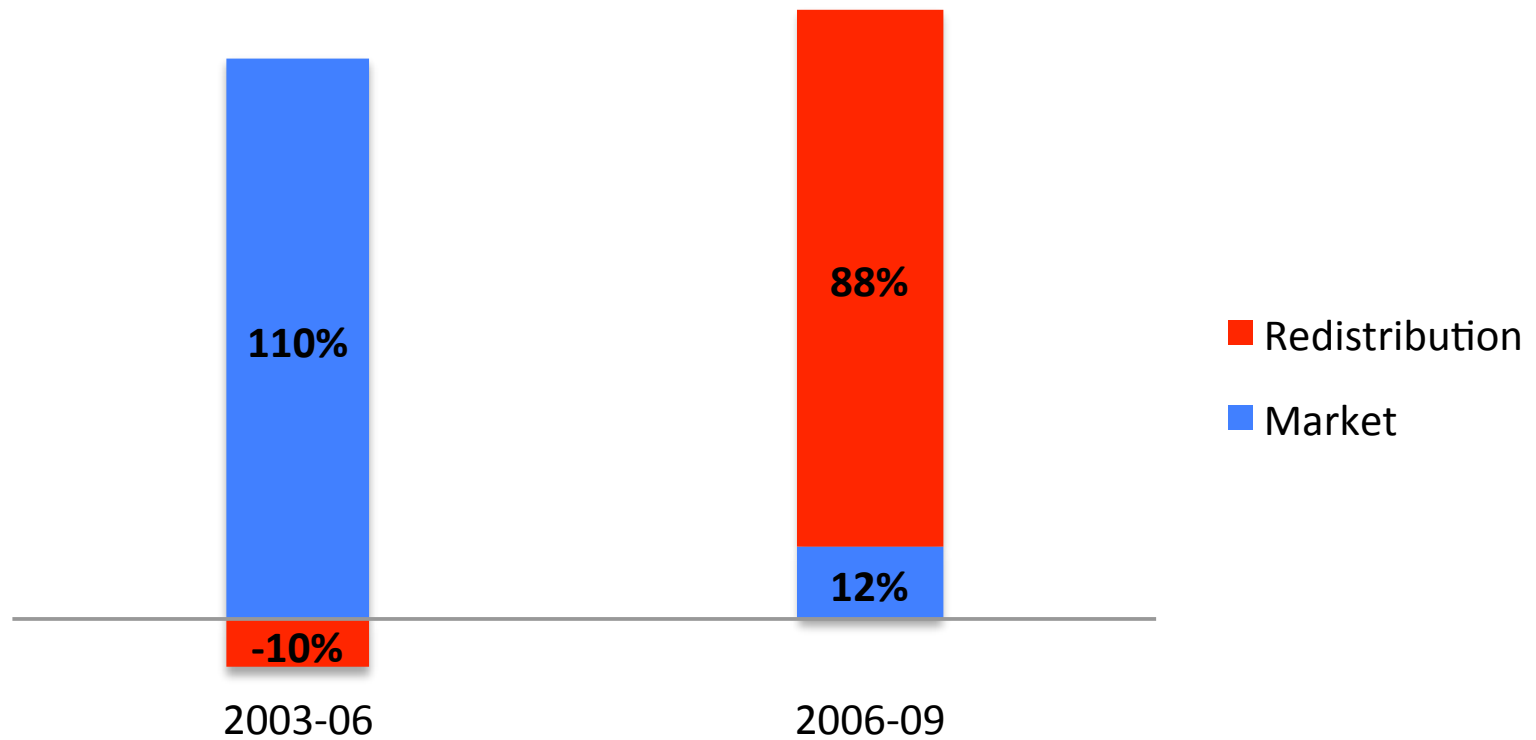
# Incentives & Sustainability: Argentina

- Poverty reduction and redistribution as well as effectiveness are the highest in Argentina. Is Argentina a model of redistributive policies?
  - Increasingly relied on redistribution through cash transfers => pension moratorium
  - Pension moratorium: good for elderly women bad for incentives (informality) and problems of unfairness
  - Fiscal sustainability called into question: source of revenues such as inflation tax and international reserves are problematic

## Argentina-Reduction in Inequality: Market (blue) vs. Redistribution (red)



## Argentina-Reduction in Poverty: Market (blue) vs. Redistribution (red)



## In sum...

- Taxes and transfers reduce inequality and poverty by nontrivial amounts in Argentina, Brazil, and Uruguay, less so in Mexico and relatively little in Bolivia and Peru.
- Personal income tax varies from around five percent of GDP in Uruguay to nearly zero in Bolivia.
- In all countries in which they exist, direct taxes are progressive, but because direct taxes are a small percentage of GDP almost everywhere their redistributive impact is small.

## In sum...

- Cash transfers have reduced extreme poverty by more than 60 percent in Uruguay and Argentina but only by seven percent in Peru, which spends too little on cash transfer to achieve much poverty reduction
- Bolivia spends five times more than Peru (as a share of GDP) but because funds are not targeted to the poor, the amount of redistribution and poverty reduction has been limited. It is only slightly higher than Peru.

## In sum...

- In Brazil and Bolivia, indirect taxes wipe out most effect of direct transfers, and poverty is almost the same after as before taxes and cash transfers.
- In contrast, in Mexico poverty after indirect taxes and subsidies is lower because the poor pay little in the form of indirect taxes due to exemptions and informality.
- .Public spending on education and health is more equalizing than cash transfers in all the countries.



# In sum...

The largely positive redistributive picture of Argentina, Brazil and Uruguay hides some unpleasant facts.

- For instance, about 16 percent of Brazilian social spending goes to tertiary education, mostly benefitting the five percent of the population with incomes above US\$50 per day.
- Uruguay, too, allocates subsidies to upper income students.
- In Argentina, progressive cash transfers are substantially less than indirect (and regressive) subsidies to agricultural producers, airlines and other transportation sectors, manufacturing industries, and energy companies. Argentina's sharp rise of public spending during the 2000s has been increasingly financed by distortionary taxes and unorthodox and unsustainable revenue-raising mechanisms.

**THANK YOU**



# What is CEQ?

[www.commitmenttoequity.org](http://www.commitmenttoequity.org)



Led by Nora Lustig (Tulane University) and Peter Hakim (Inter-American Dialogue), the *Commitment to Equity* (CEQ) project is designed to analyze the impact of taxes and social spending on inequality and poverty, and to provide a roadmap for governments, multilateral institutions, and nongovernmental organizations in their efforts to build more equitable societies. CEQ/Latin America is a joint project of the Inter-American Dialogue (IAD) and Tulane University's Center for Inter-American Policy and Research (CIPR) and Department of Economics. The project has received financial support from the Canadian International Development Agency (CIDA), the Development Bank of Latin America (CAF), the General Electric Foundation, the Inter-American Development Bank (IADB), the International Fund for Agricultural Development (IFAD), the Norwegian Ministry of Foreign Affairs, the United Nations Development Programme's Regional Bureau for Latin America and the Caribbean (UNDP/RBLAC), and the World Bank.

<http://commitmenttoequity.org>



- Tulane University; for Latin America, with the Inter-American Dialogue
- 12 countries from Latin America; 6 more in process of being added
- 7 finished: Argentina (2003, 2006, 2009), Bolivia (2007), Brazil (2009), Mexico (2008, 2010), Peru (2009), Uruguay (2009), Paraguay (2010)
- 5 in progress: Chile, Colombia, Costa Rica, El Salvador, Guatemala
- Other regions: AfrDB, WB pilot studies in 5 regions outside of LAC

- “Commitment to Equity Assessment (CEQ): Estimating the Incidence of Social Spending, Subsidies and Taxes. Handbook,” by Nora Lustig and Sean Higgins, *CEQ Working Paper No. 1*, July 2011; revised January 2013.
- “Commitment to Equity: Diagnostic Questionnaire,” by Nora Lustig, *CEQ Working Paper No. 2*, 2010; revised August 2012.
- “The Impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico and Peru: A Synthesis of Results,” by Nora Lustig, George Gray Molina, Sean Higgins, Miguel Jaramillo, Wilson Jiménez, Veronica Paz, Claudiney Pereira, Carola Pessino, John Scott, and Ernesto Yañez, *CEQ Working Paper No. 3*, August 2012.
- “Fiscal Incidence, Fiscal Mobility and the Poor: A New Approach,” by Nora Lustig and Sean Higgins, *CEQ Working Paper No. 4*, September 2012.
- “Social Spending and Income Redistribution in Argentina in the 2000s: the Rising Role of Noncontributory Pensions,” by Nora Lustig and Carola Pessino, *CEQ Working Paper No. 5*, January 2013.
- “Explaining Low Redistributive Impact in Bolivia,” by Verónica Paz Arauco, George Gray Molina, Wilson Jiménez Pozo, and Ernesto Yañez Aguilar, *CEQ Working Paper No. 6*, January 2013.
- “The Effects of Brazil’s High Taxation and Social Spending on the Distribution of Household Income,” by Sean Higgins and Claudiney Pereira, *CEQ Working Paper No. 7*, January 2013.
- “Redistributive Impact and Efficiency of Mexico’s Fiscal System,” by John Scott, *CEQ Working Paper No. 8*, January 2013.
- “The Incidence of Social Spending and Taxes in Peru,” by Miguel Jaramillo Baanante, *CEQ Working Paper No. 9*, January 2013.
- “Social Spending, Taxes, and Income Redistribution in Uruguay,” by Marisa Bucheli, Nora Lustig, Máximo Rossi and Florencia Amábile, *CEQ Working Paper No. 10*, January 2013.
- “Social Spending, Taxes and Income Redistribution in Paraguay,” Sean Higgins, Nora Lustig, Julio Ramirez, Billy Swanson, *CEQ Working Paper No. 11*, February 2013.
- “High Incomes and Personal Taxation in a Developing Economy: Colombia 1993-2010,” by Facundo Alvaredo and Juliana Londoño Vélez, *CEQ Working Paper No. 12*, March 2013.
- “The Impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico, Peru and Uruguay: An Overview,” Nora Lustig, Carola Pessino and John Scott, *CEQ Working Paper No. 13*, April 2013.