

Taxes, Transfers, Inequality, and Poverty: Argentina, Bolivia, Brazil, Mexico, and Peru

Nora Lustig

Tulane University

**Nonresident Fellow Center for Global Development
and Inter-American Dialogue**

Inter-American Dialogue and Tulane University

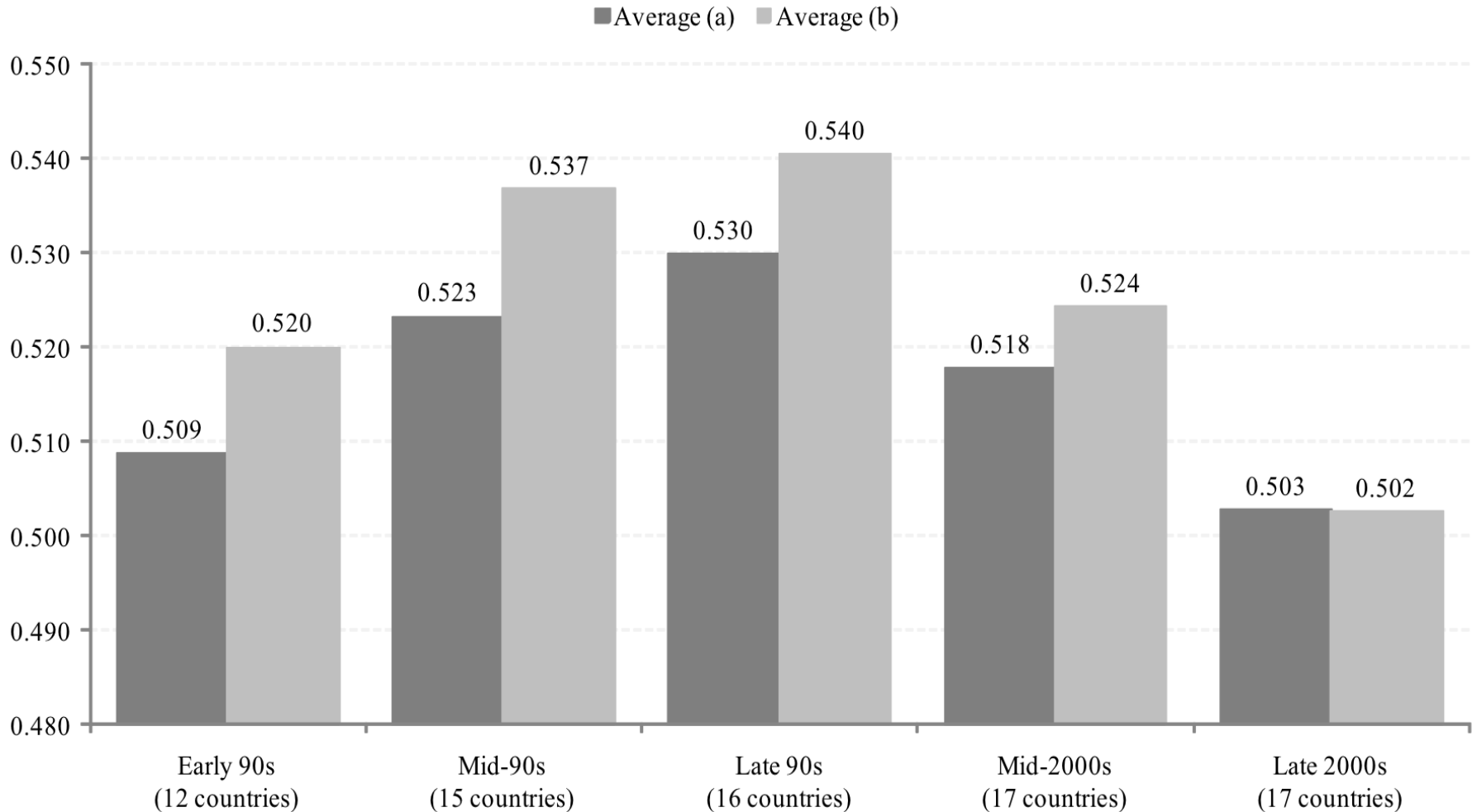
Inter-American Development Bank

Washington, DC, May 15, 2012

Trends in Inequality

Gini Coefficient Early 1990's-Late 2000's (Unweighted ave.)

Light Grey: Countries with Falling Ineq (Lustig et al., 2011)



Commitment to Equity Project

- Commitment to Equity (CEQ) Project; Inter-American Dialogue and Tulane University's CIPR and Dept. of Economics.
- Currently: 12 countries
- 6 finished: Argentina (2009), Bolivia (2007), Brazil (2009), Mexico (2008), Peru (2009) and Uruguay (2009) (year of HH survey)
- 6 in progress: Chile, Colombia, Costa Rica, El Salvador, Guatemala, Paraguay
- To begin soon: Dominican Republic
- Branching out into other regions

Commitment to Equity Project

- Argentina: Carola Pessino (CGD and CEMA)
- Bolivia: George Gray Molina (UNDP), Wilson Jimenez, Veronica Paz and Ernesto Yañez (Instituto Alternativo, La Paz,
- Brazil: Claudiney Pereira and Sean Higgins (Tulane)
- Mexico: John Scott (CIDE and CONEVAL)
- Peru: Miguel Jaramillo (GRADE)
- Uruguay: Marisa Bucheli, Maximo Rossi, and Florencia Amabile (Universidad de la Republica)

References

- Lustig, Nora (coordinator). Fiscal Policy and Income Redistribution in Latin America: Challenging the Conventional Wisdom, Argentina: Carola Pessino; Bolivia: George Gray Molina, Wilson Jimenez, Verónica Paz, Ernesto Yañez; Brazil: Claudiney Pereira, Sean Higgins; Mexico: John Scott; Peru: Miguel Jaramillo. , Economics Department, Tulane University, Working Paper. 2011. Revised: Forthcoming.

References

- Lustig, N. and S. Higgins. Fiscal Incidence, Fiscal Mobility and the Poor: a New Approach. Economics Department, Tulane University, Working Paper. 2012.
- Bucheli, M., N. Lustig, M. Rossi and F. Amabile Social Spending, Taxes and Income Redistribution in Uruguay. Economics Department, Tulane University, Working Paper. Forthcoming.



DECLINING INEQUALITY IN LATIN AMERICA

A DECADE OF PROGRESS?

LUIS F. LOPEZ-CALVA & NORA LUSTIG
EDITORS

Fiscal Incidence: Caveats

- No modeling:
 - No behavioral responses (or almost none)
 - No inter-temporal dimensions
 - No general equilibrium effects
 - No fiscal sustainability analysis
- Average Incidence

Fiscal Incidence: Caveats

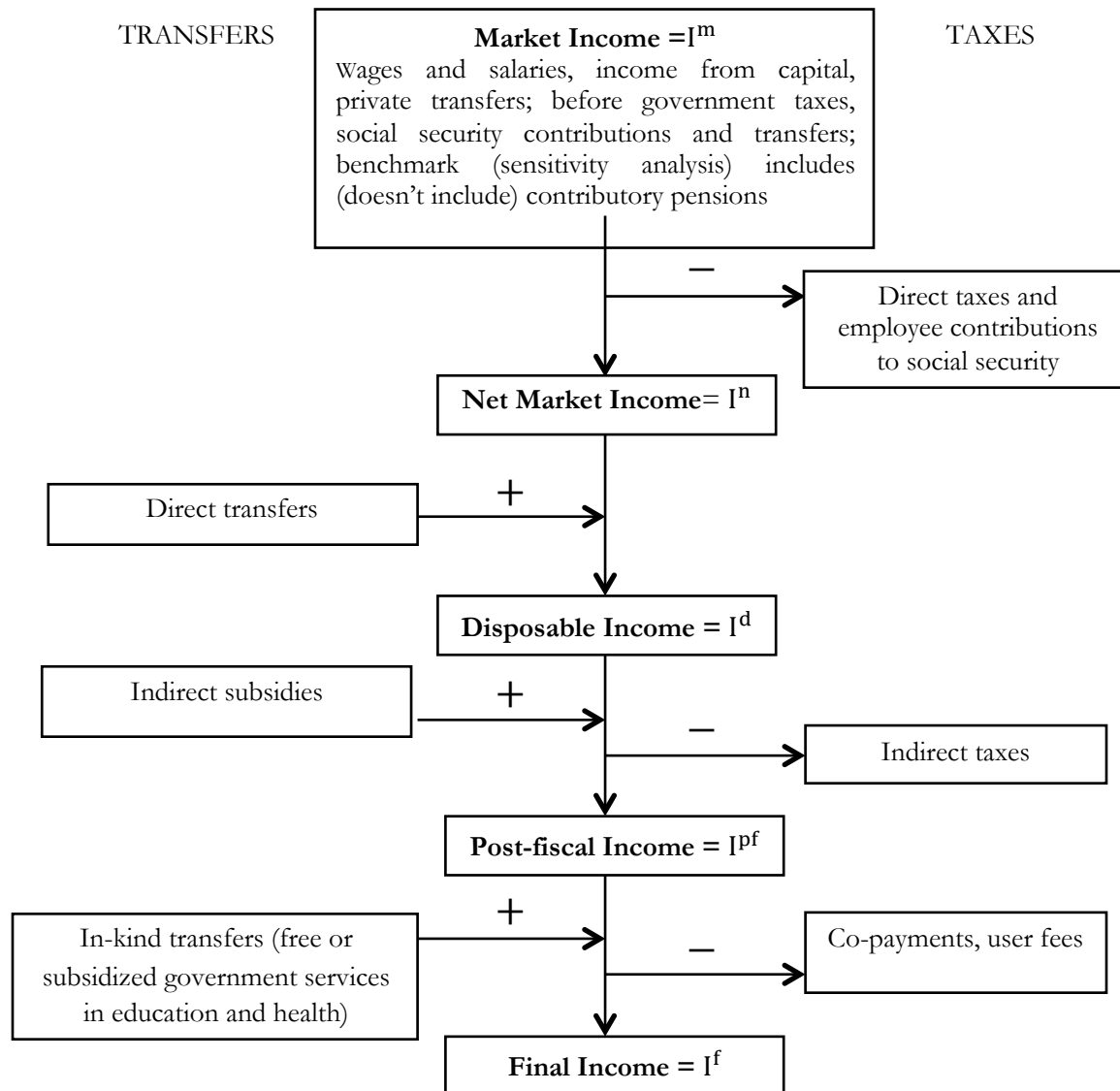
- One can never know the distribution of income that would have existed in the absence of the taxes/transfers.
- Most up-to-date and microdata-based analysis of taxes and transfers combined

Results: A Primer

Incidence of Taxes and Transfers

1. Lots of heterogeneity in LA
2. No clear-cut correlation between government size, the extent of redistribution, redistributive effectiveness
3. Direct taxes achieve little in the form of redistribution
4. Direct transfers reduce poverty the most when coverage of the poor is high and average transfer is close to average poverty gap
5. Indirect taxes can make poor people net contributors to the state and a substantial portion of the poor poorer

Definitions of Income Concepts: A Stylized Presentation

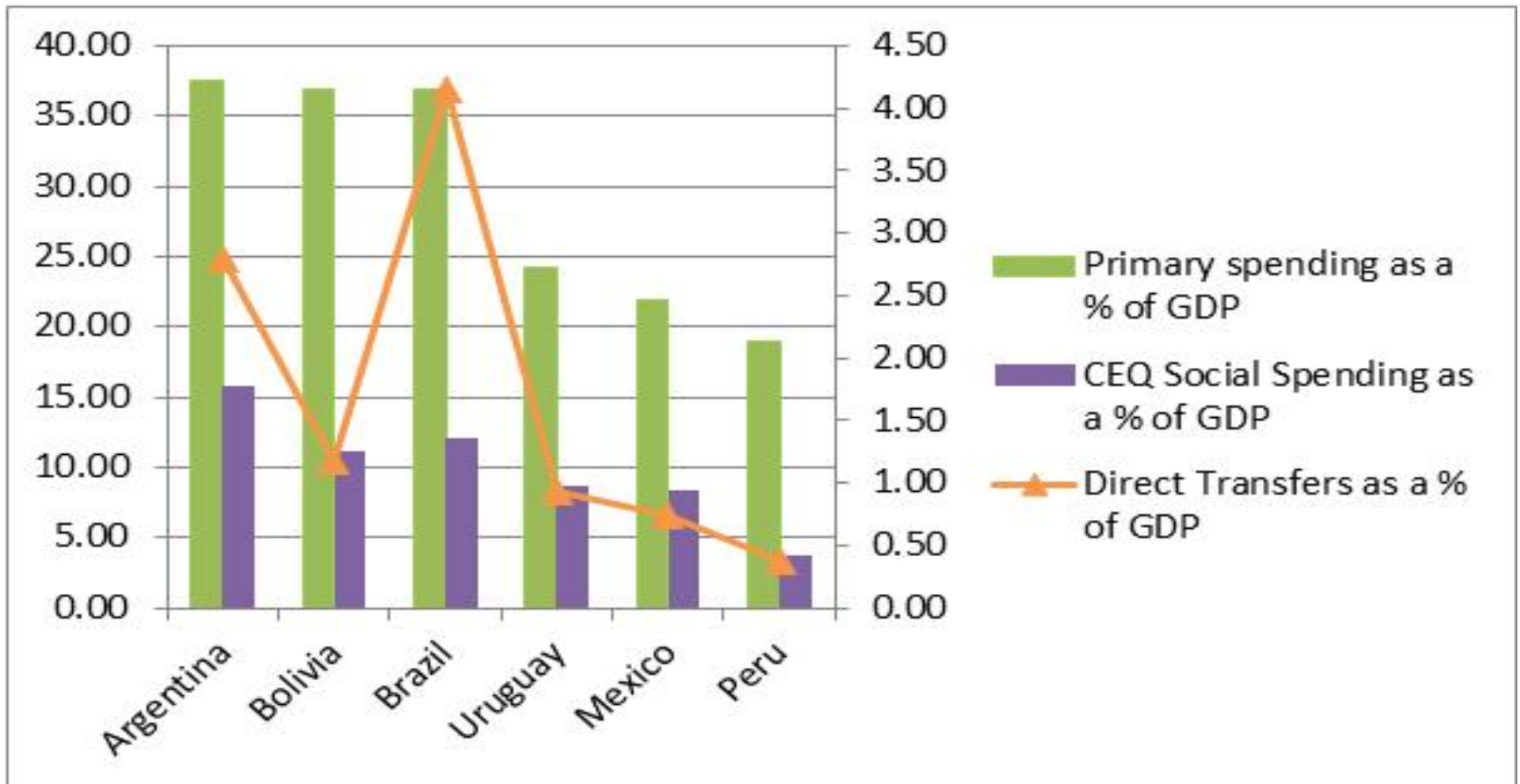


Conclusions:

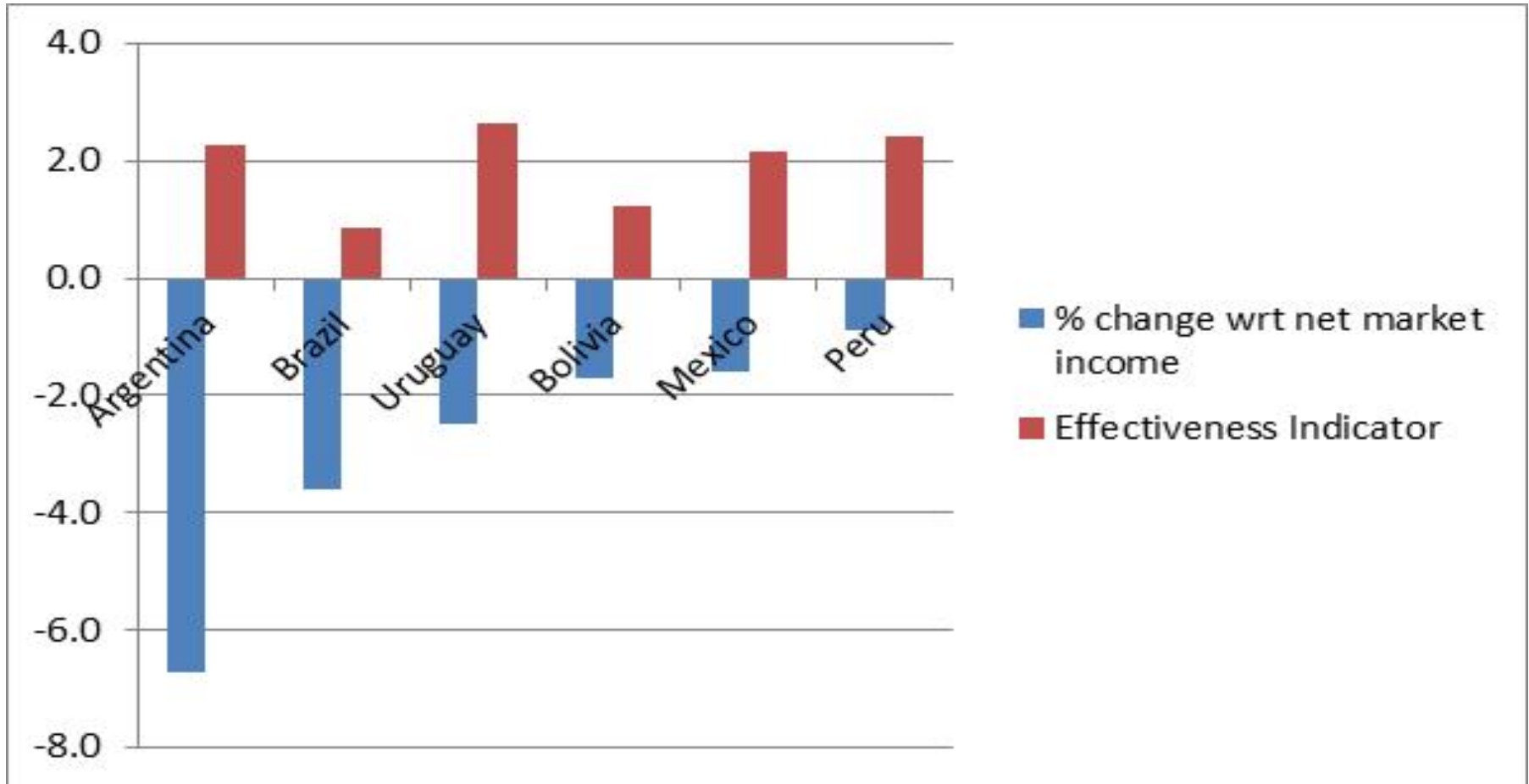
First, Latin America is heterogenous;
can't talk of "a Latin America"

The extent and effectiveness of income redistribution and poverty reduction, government size, and spending patterns vary significantly across countries.

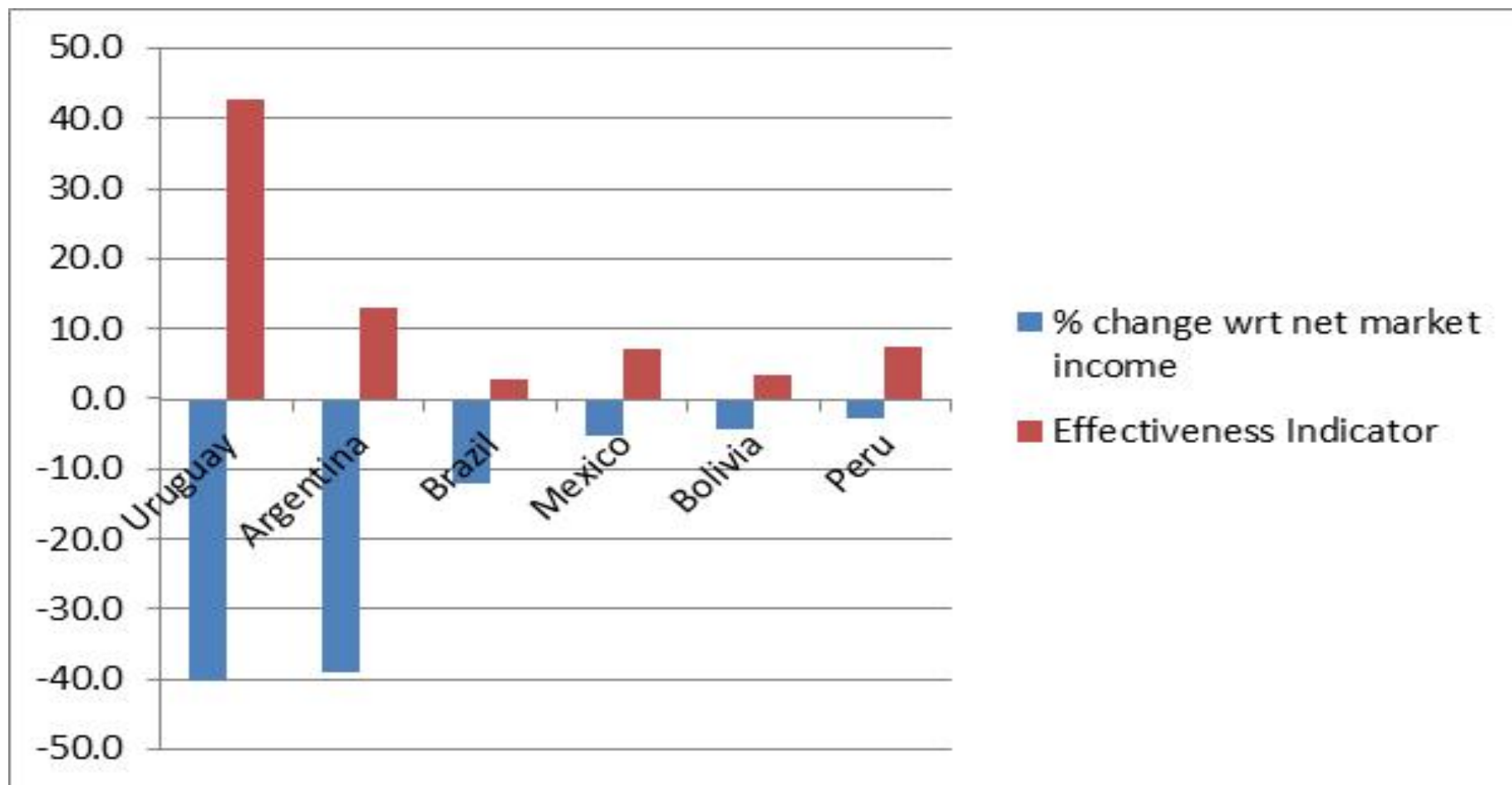
Heterogeneous LA: State comes in different sizes



Decline in Gini and Effectiveness: Heterogeneous LA



Decline in Headcount Ratio \$2.50 PPP and Pov. Reduction Effectiveness

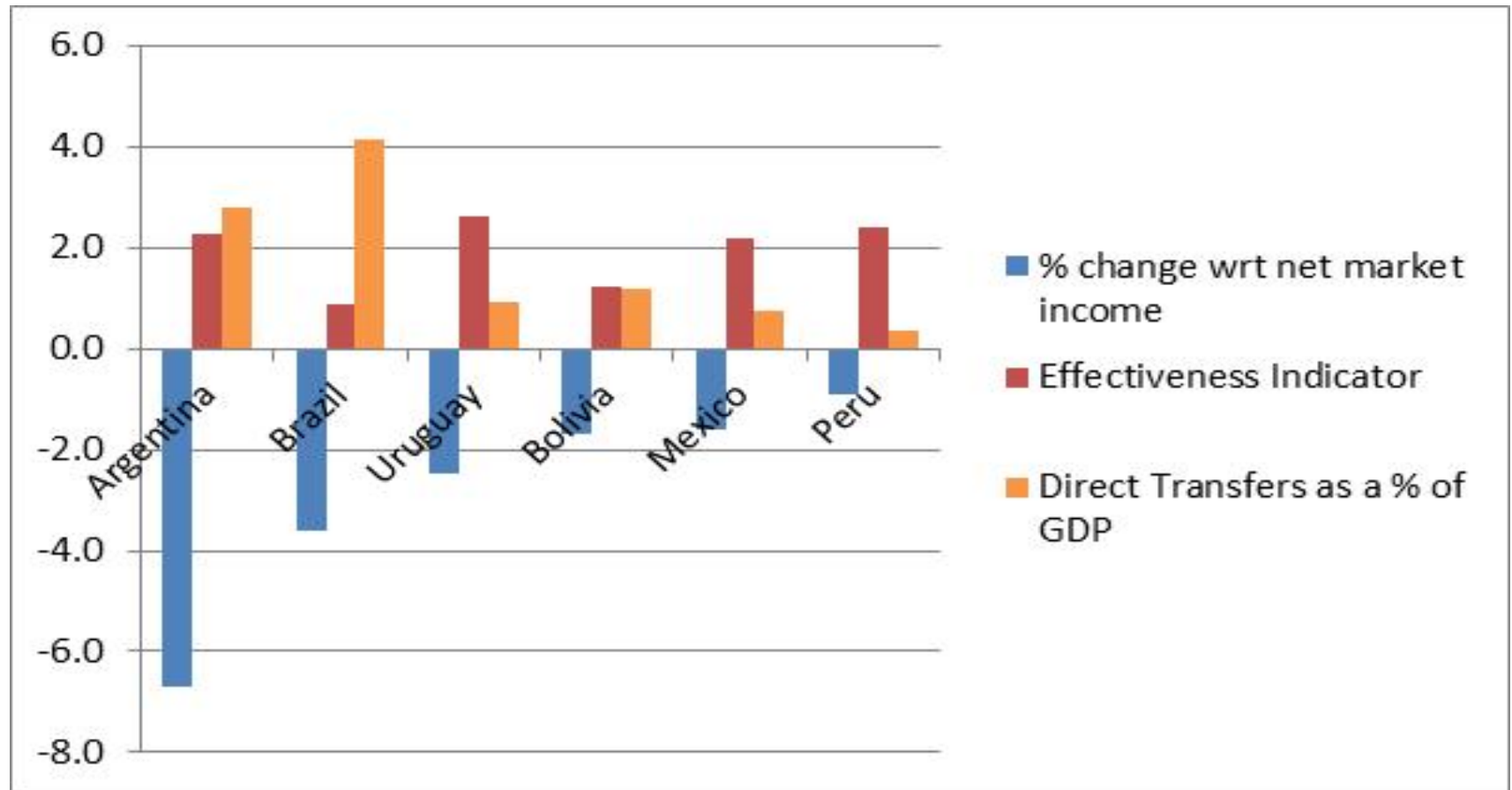


Conclusions

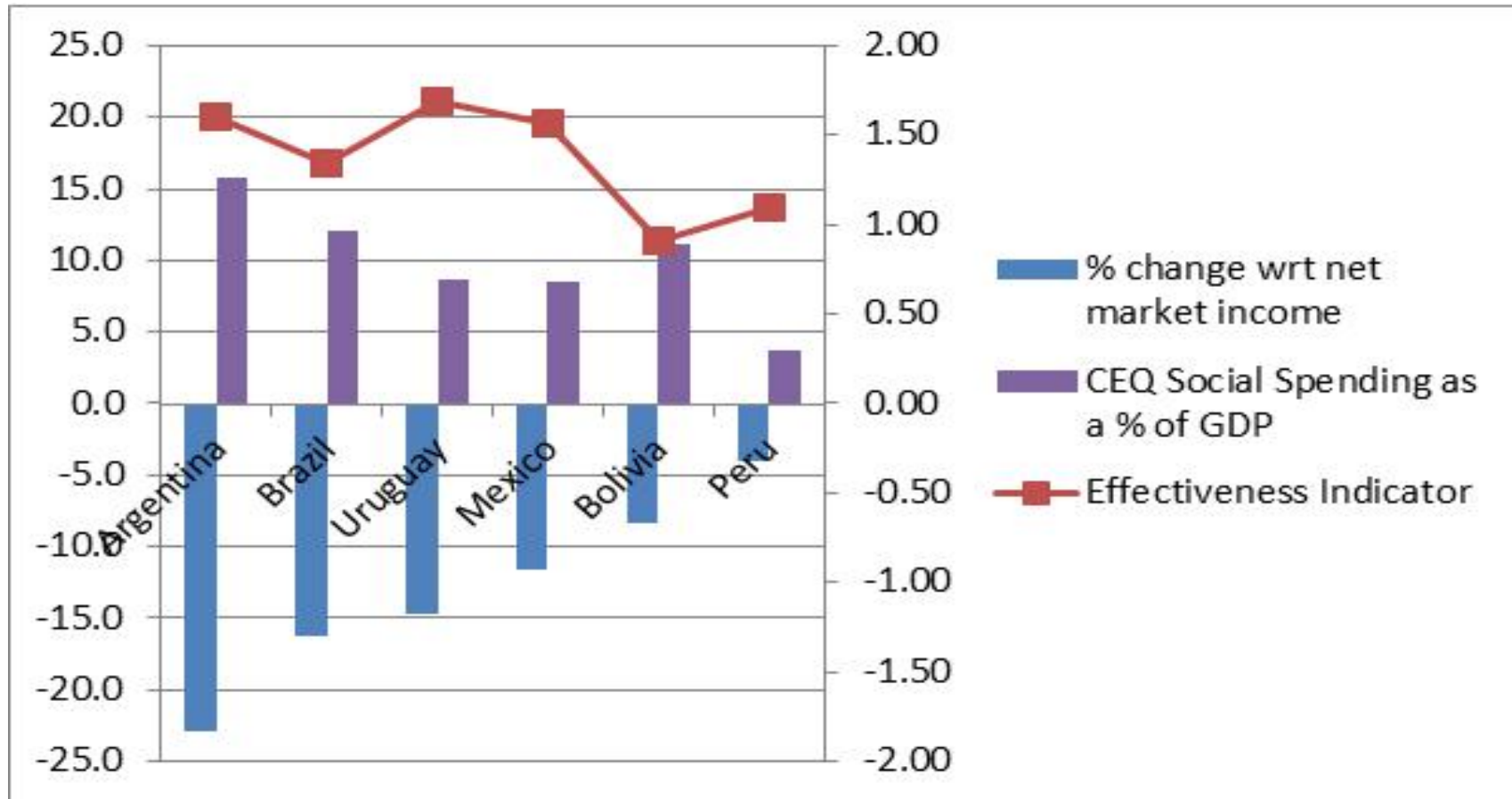
- Second, no clear-cut correlation between government size and the extent and effectiveness of redistribution and poverty reduction.

	Headcount		Headcount		Direct	Primary	
	Gini	Gini	Ratio Net	Ratio	Transfers as	Spending as	GDP/cap
	Mket	Disposable	Mket	Disposable	% GDP	% of GDP	U\$PPP
	Income	Income	Income	Income			
Argentina	0.50	0.46	14%	5%	2.8%	38%	14030
Bolivia	0.53	0.52	22%	21%	1.2%	37%	4069
Brazil	0.57	0.54	15%	12%	4.2%	37%	10140
Mexico	0.53	0.51	12%	11%	0.8%	22%	14530
Peru	0.50	0.49	15%	14%	0.4%	19%	8349

Decline in Disp Inc Gini, Direct Transfers and Effectiveness Indicator



Decline in Final Inc Gini, Direct Transfers and Effectiveness Indicator



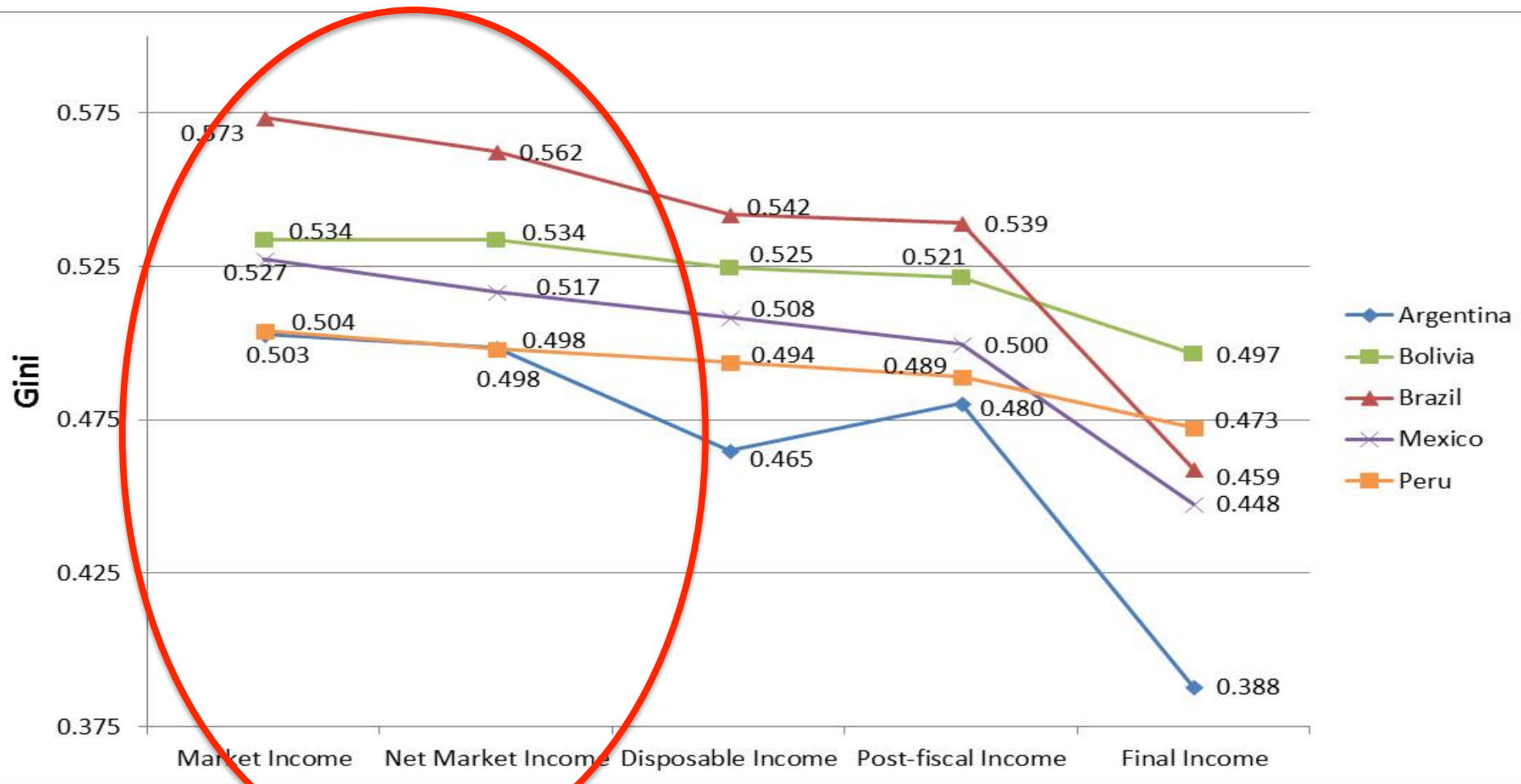
Conclusions

Third, direct taxes in LA achieved relatively little in the form of redistribution.

Caveat:

- The rich are excluded from analysis using household surveys; need governments to share information from tax returns (anonymous of course) as all OECD countries do (except for Chile, Mexico and Turkey)

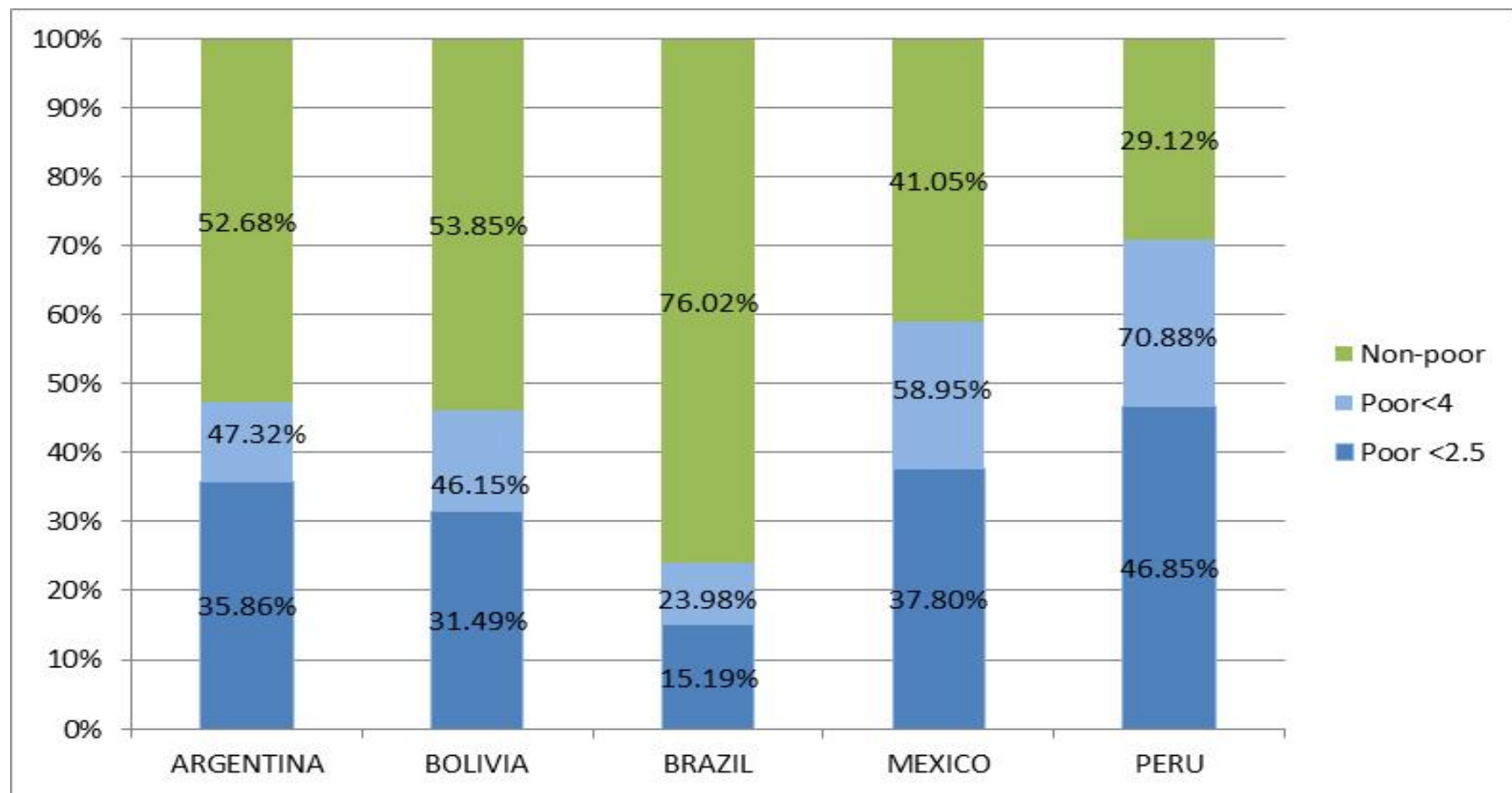
Fiscal Policy and Decline in Gini



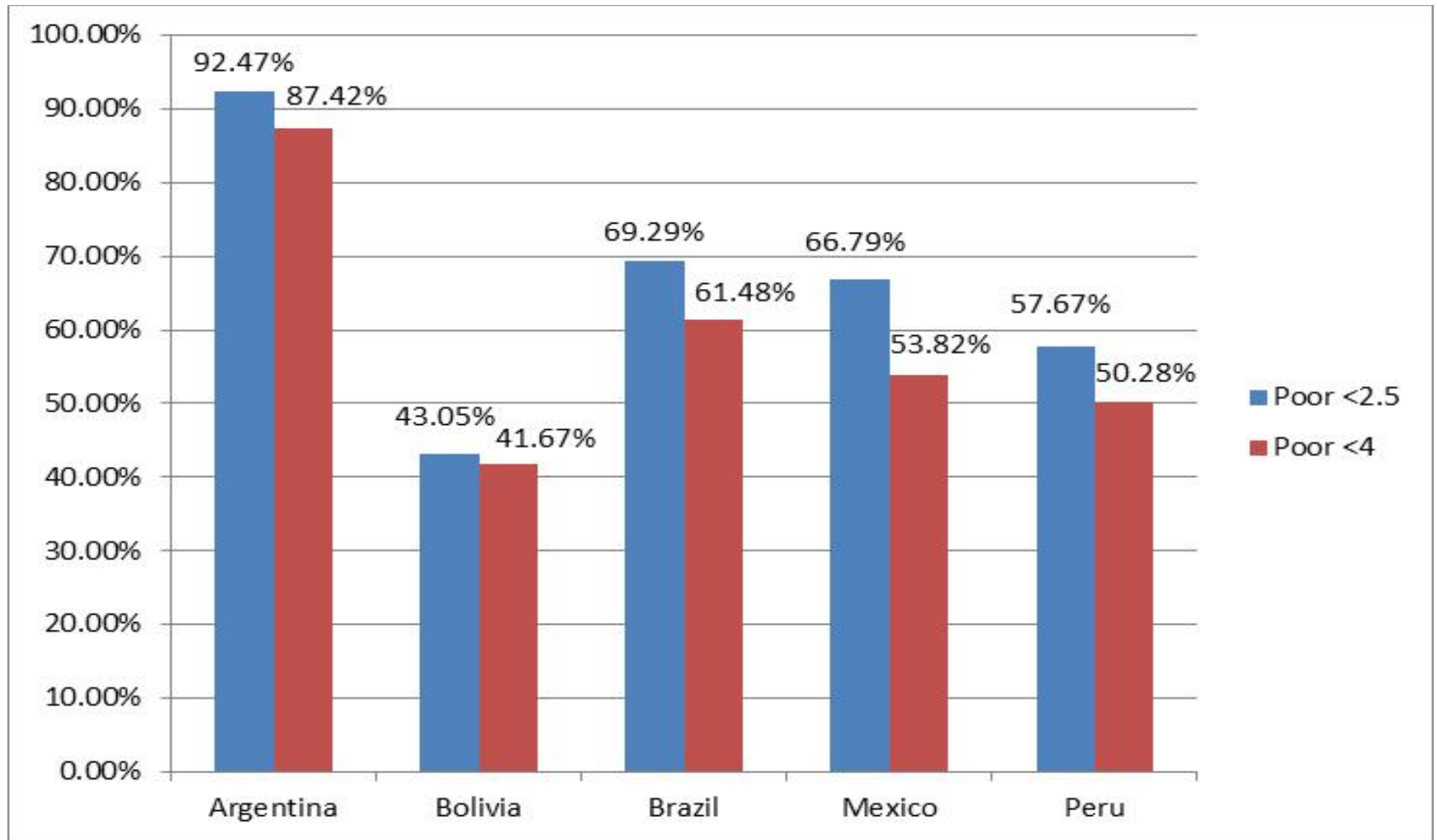
Conclusions

- Fourth, large-scale targeted cash transfers can achieve significant reductions in extreme poverty.
- The extent of poverty reduction depends on:
 - size of per capita transfer (related to leakages to nonpoor)
 - coverage of the poor

“Leakages” to Non-poor



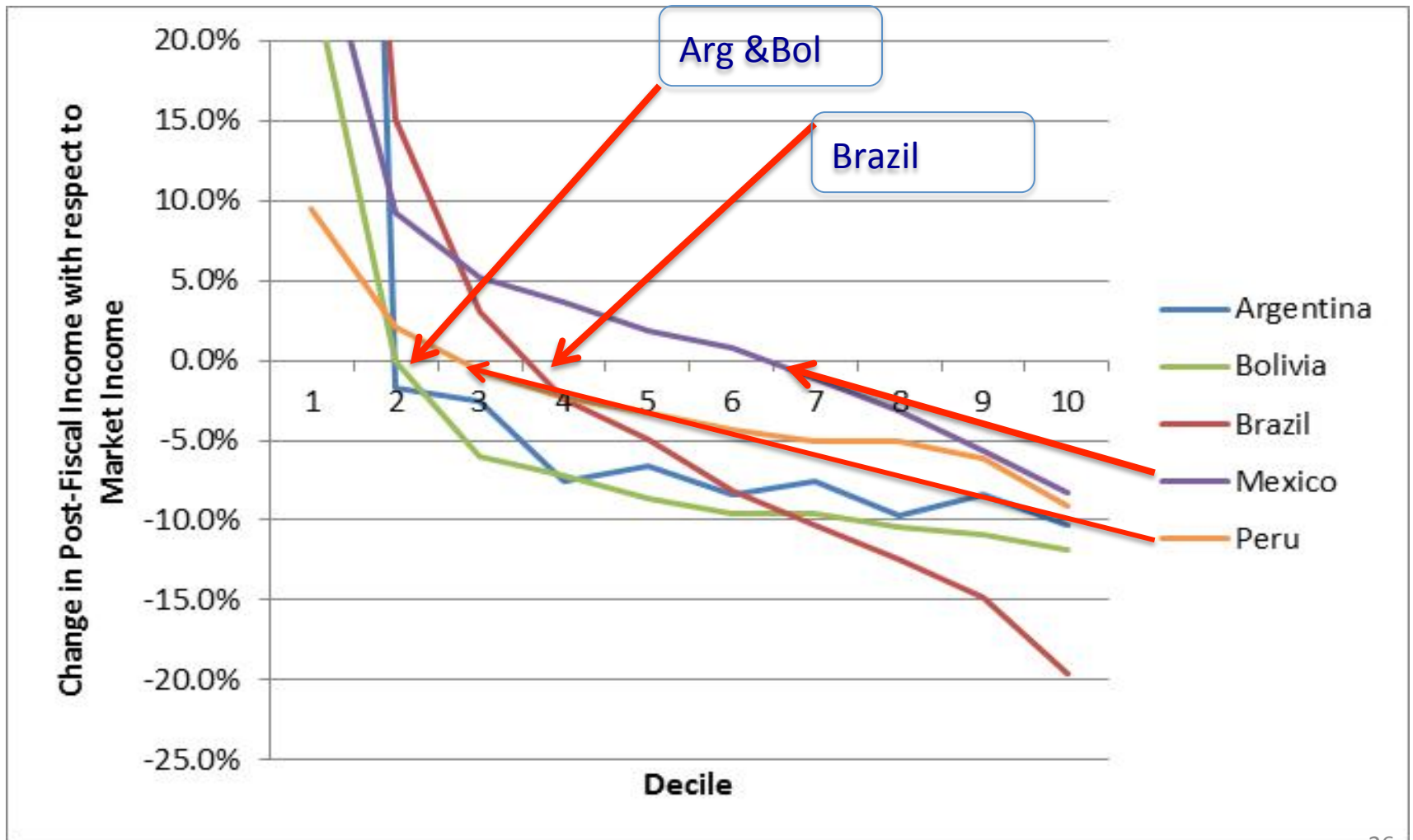
Coverage of the Extreme and Total Poor



Conclusions

- Fifth, when indirect taxes are taken into account
 - The moderate poor and the near poor become net payers to the fiscal system (except for Mexico, 2008)
 - A significant share of the moderate (extreme) poor become extreme (ultra) poor in some of the countries; results for Brazil are striking

Impact of Indirect Taxes



Indirect Taxes and the Poor in Brazil (Lustig and Higgins, 2012)

- Indirect taxes make around 11 percent of the non-poor poor, 15 percent of the moderate poor extremely poor, and 4 percent of the extremely poor “ultra-poor” despite any cash transfers they receive
- We would have missed this with standard analysis:
 - extreme poverty and inequality indicators decline
 - overall taxes are progressive

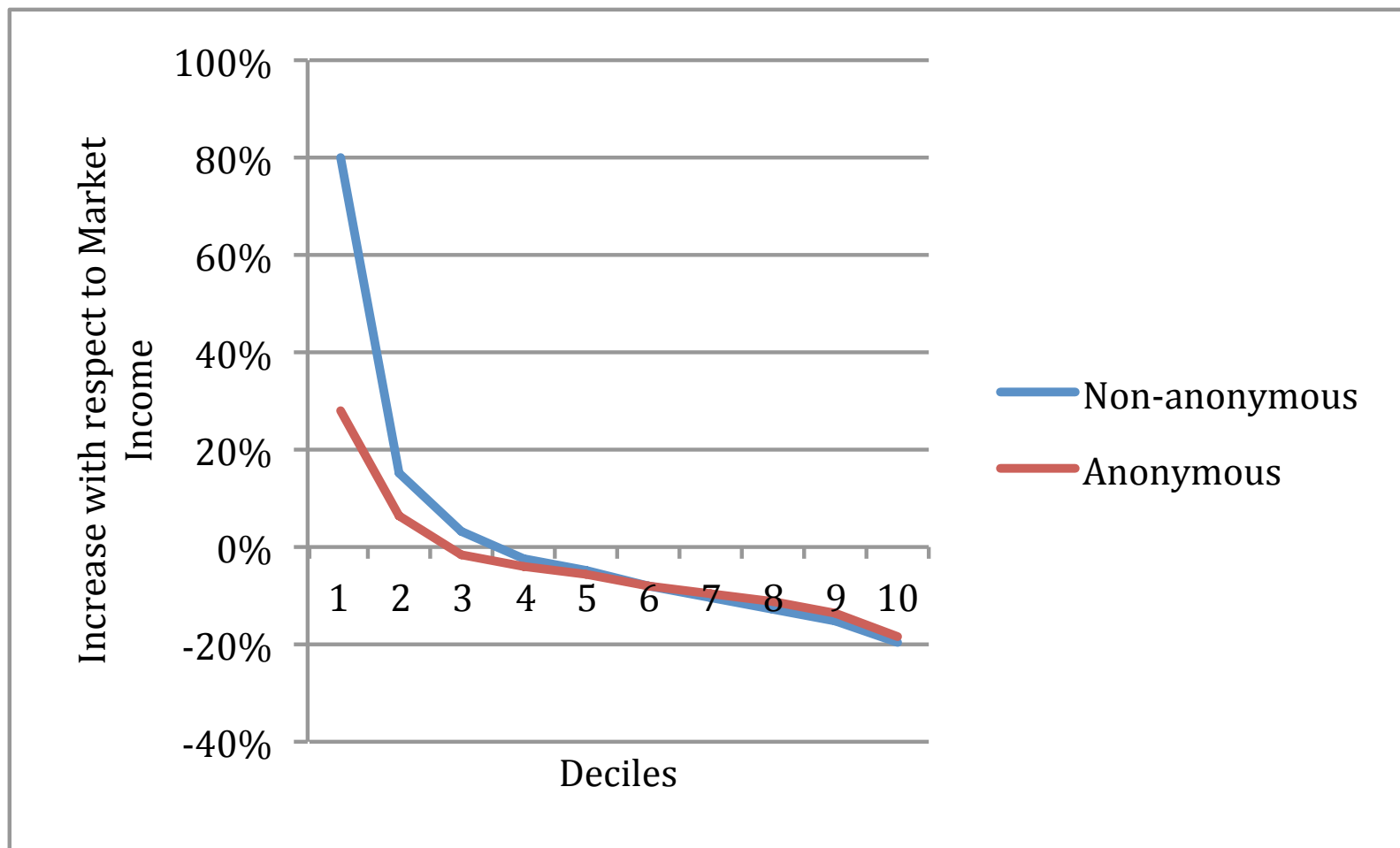
Table 2. Inequality and poverty before and after taxes and transfers in Brazil

Indicator	Before taxes and transfers	After taxes and transfers
Gini Coefficient	.573	.539
Headcount Index ¹	5.7%	4.3%
Poverty Gap ¹	2.3%	1.3%
Squared Poverty Gap ¹	1.3%	0.6%
Headcount Index ²	15.3%	15.0%
Poverty Gap ²	6.3%	5.4%
Squared Poverty Gap ²	3.7%	2.7%

Note: 1: \$1.25 PPP per day; 2: \$2.50 PPP per day

Source: Pereira and Higgins (2012). Differences in poverty and the Gini between the “before” and “after” situations are all statistically significant at the 0.1% level.

Figure 2. Anonymous and non-anonymous fiscal incidence curves by deciles for Brazil



Source: Authors' calculations based on POF (2008-2009).

Fiscal Mobility: Fiscally-induced Upward and Downward Movement (in %). Brazil'09

Fiscal Mobility Matrix for Brazil

	Post-Fiscal Income groups							
Market Income groups	y < 1.25	1.25 <= y < 2.50	2.50 <= y < 4.00	4.00 <= y < 10.00	10.00 <= y < 50.00	50.00 <= y	Percent of pop-ulation	Mean income
y < 1.25	69%	21%	6%	3%			5.7%	\$0.74
1.25 <= y < 2.50	4%	81%	10%	4%			9.6%	\$1.89
2.50 <= y < 4.00		15%	75%	9%	1%		11.3%	\$3.24
4.00 <= y < 10.00			11%	86%	3%		33.6%	\$6.67
10.00 <= y < 50.00				15%	85%		35.3%	\$19.90
50.00 <= y					32%	68%	4.5%	\$94.59
Percent of population	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	

Note: Mean incomes are in US\$ PPP per day. Rows may not sum to exactly 100% due to rounding. Zeroes are omitted from the matrix for enhanced readability. Differences in group shares between the “before” and “after” scenarios are all statistically significant from zero at the 0.1% significance level.

Source: Lustig and Higgins (2009) based on POF (2008-2009).

Income loss matrix for “losers” in Brazil.

	Post-Fiscal Income groups							
Market Income groups	y < 1.25	1.25 < = y < 2.50	2.50 < = y < 4.00	4.00 < = y < 10.00	10.00 < = y < 50.00	50.00 < = y	Percent of population	Group average
y < 1.25	-10% \$0.83						5.7%	-10% \$0.83
1.25 < = y < 2.50	-13% \$1.34	-10% \$2.01					9.6%	-10% \$1.96
2.50 < = y < 4.00		-14% \$2.71	-11% \$3.40				11.3%	-11% \$3.27
4.00 < = y < 10.00			-15% \$4.36	-14% \$7.04			33.6%	-14% \$6.70
10.00 < = y < 50.00				-16% \$10.98	-16% \$21.76		35.3%	-16% \$20.03
50.00 < = y					-22% \$56.66	-21% \$113.30	4.5%	-21% \$94.99
Percent of population	4.3%	10.7%	13.5%	35.8%	32.5%	3.2%	100%	
Group average	-11% \$0.95	-11% \$2.20	-12% \$3.73	-14% \$7.73	-16% \$23.46	-21% \$113.30		-14.5% \$16.10

Note: All monetary amounts are using before taxes and transfers income and are in PPP-adjusted dollars per day. Zeroes are omitted from the matrix for enhanced readability. Differences in group shares between the “before” and “after” scenarios are all statistically significant from zero at the 0.1% significance level.

Sources: Authors’ calculations based on BQF (2008, 2009)

Thank you