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Fiscal Redistribution in Low and Middle Income Countries

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CGD and IAD

DevTalks

Development Centre

OECD

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Lustig, Nora, editor, *Commitment to Equity Handbook. A Guide to Estimating the Impact of Fiscal Policy on Inequality and Poverty*, Brookings Institution Press and Tulane University, forthcoming.

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- Comprehensive standard fiscal incidence analysis of current systems
- Harmonized definitions and methodological approaches to facilitate cross-country comparisons
- Uses income/consumption per capita as the welfare indicator
- Allocators vary => full transparency in the method used for each category, tax shifting assumptions, tax evasion
- Secondary sources are used to a minimum

Lustig and Higgins, The CEQ Assessment: Measuring the Impact of Fiscal Policy on Inequality and Poverty ." Chapter in Lustig (editor) *Commitment to Equity Handbook. A Guide to Estimating the Impact of Fiscal Policy on Inequality and Poverty*, Brookings Institution Press and Tulane University, forthcoming.

CEQ Assessment: Fiscal Interventions

- Currently included:
  - Direct taxes
  - Direct cash transfers
  - Non-cash direct transfers such as school uniforms and breakfast
  - Contributions to pensions and social insurance systems
  - Indirect taxes on consumption
  - Indirect subsidies
  - In-kind transfers such as spending on education and health
- Working on:
  - Corporate taxes

Lustig and Higgins, The CEQ Assessment: Measuring the Impact of Fiscal Policy on Inequality and Poverty ." Chapter in Lustig (editor) *Commitment to Equity Handbook. A Guide to Estimating the Impact of Fiscal Policy on Inequality and Poverty*, Brookings Institution Press and Tulane University, forthcoming.

CEQ Assessment: **Income Concepts**

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MARKET INCOME

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PLUS DIRECT TRANSFERS MINUS DIRECT TAXES

↓

DISPOSABLE INCOME

↓

PLUS INDIRECT SUBSIDIES MINUS INDIRECT TAXES

↓

CONSUMABLE INCOME

↓

PLUS MONETIZED VALUE OF PUBLIC SERVICES: EDUCATION & HEALTH

↓

FINAL INCOME

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Fiscal Incidence in CEQ Assessments

- Accounting approach
  - no behavioral responses
  - no general equilibrium effects and
  - no intertemporal effects
  - but it incorporates assumptions to obtain economic incidence (not statutory)
- Point-in-time
- Mainly average incidence; a few cases with marginal incidence

Lustig and Higgins,"The CEQ Assessment: Measuring the Impact of Fiscal Policy on Inequality and Poverty ." Chapter in Lustig (editor) *Commitment to Equity Handbook. A Guide to Estimating the Impact of Fiscal Policy on Inequality and Poverty*, Brookings Institution Press and Tulane University, forthcoming.

Monetizing in-kind transfers

- Incidence of public spending on education and health followed so-called “benefit or expenditure incidence” or the “government cost” approach.
- In essence, we use per beneficiary input costs obtained from administrative data (and scale them down) as the measure of average benefits.
- This approach amounts to asking the following question:
  - How much would the income of a household have to be increased if it had to pay for the free or subsidized public service at the full cost to the government?

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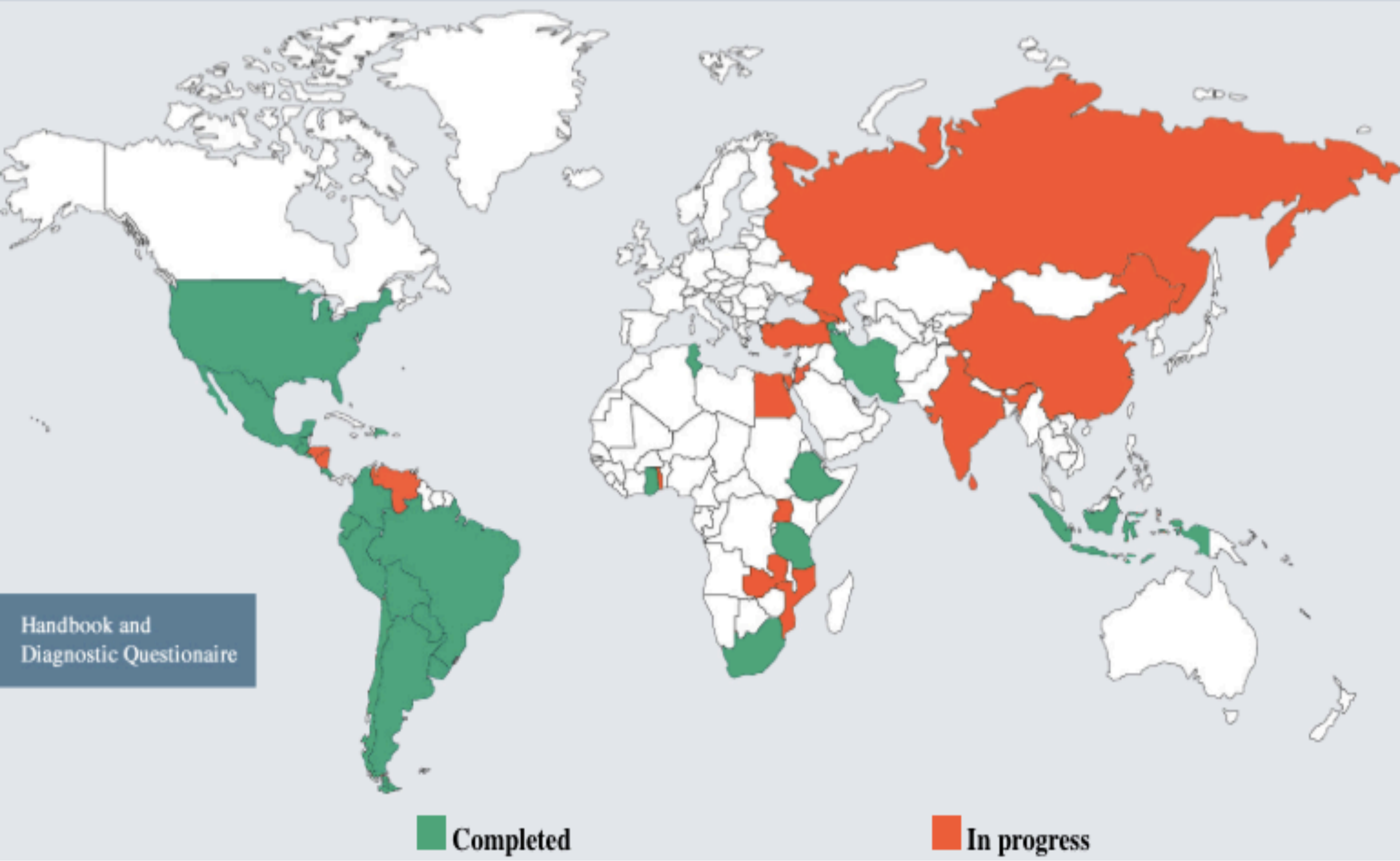
Commitment to Equity Institute (CEQI)

Objective: To measure the impact of fiscal policy on inequality and poverty across the world

- Research-based policy tools
- Data Center
- Advisory and training services
- Bridges to policy

  - ➢ Grant from Bill & Melinda Gates Foundation US4.9 million for 5 yrs



www.commitmentoequity.org

Three main messages from theory

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1. Analyzing the tax side without the spending side, or vice versa, is useless

- Taxes can be unequalizing but spending so equalizing that the unequalizing effect of taxes is more than compensated (we knew this…)
- Taxes can be regressive (Kakwani index) but when combined with transfers and other taxes, the fiscal system is more equalizing than without the regressive taxes (Lambert, 2001) (surprised?)
  - VAT in Chile
- Transfers can be progressive (Kakwani index) but when combined with taxes and other transfers, the fiscal system is more unequalizing with the progressive pensions than without them (generalizing Lambert) (surprised?)
  - Contributory pensions in Colombia

Enami, Lustig and Aranda. "Analytical Foundations: Measuring the Impact of Fiscal Policy on Inequality and Poverty." Chapter in Lustig (editor) *Commitment to Equity Handbook. A Guide to Estimating the Impact of Fiscal Policy on Inequality and Poverty*, Brookings Institution Press and Tulane University, forthcoming.

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2. Analyzing the impact on inequality only can be misleading

- Fiscal systems can be equalizing but poverty increasing (surprised?)

3. Analyzing the impact on traditional poverty indicators can be misleading

- Fiscal systems can show a reduction in poverty (headcount ratio, gap or squared gap) …
- ….and yet a substantial share of the poor could have been impoverished by the combined effect of taxes and transfers (surprised?)

Lustig and Higgins, "The CEQ Assessment: Measuring the Impact of Fiscal Policy on Inequality and Poverty ." Chapter in Lustig (editor) *Commitment to Equity Handbook. A Guide to Estimating the Impact of Fiscal Policy on Inequality and Poverty,* Brookings Institution Press and Tulane University, forthcoming.

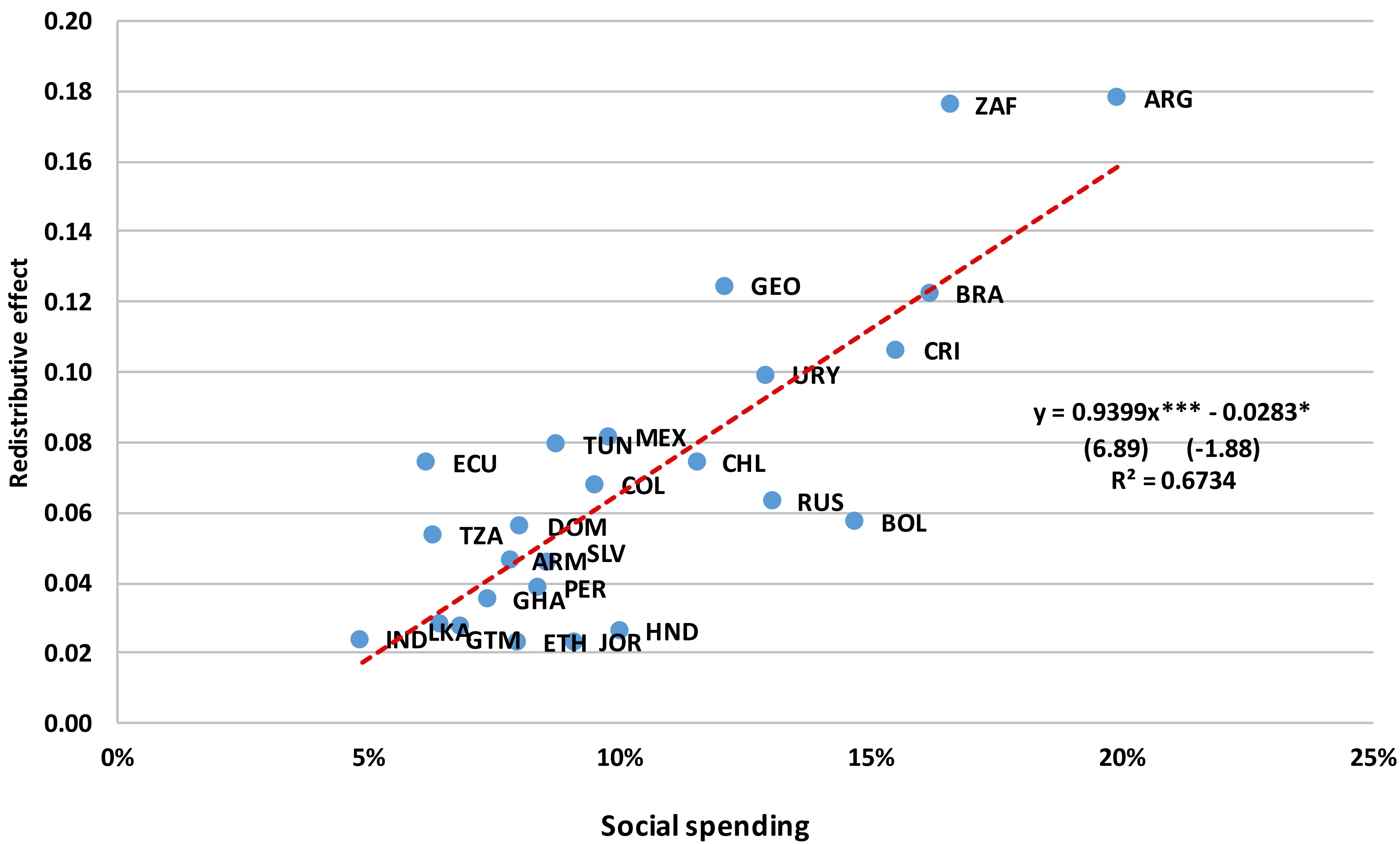
Lustig, Nora. 2016. "Fiscal Policy, Inequality, and the Poor in the Developing World." Tulane University, Economics Working Paper 1612, October.

https://ideas.repec.org/p/tul/wpaper/1612.html

- Empirical results for 25 countries based on fiscal incidence studies from the Commitment to Equity Institute for around 2010
  - Two low-income countries: **Ethiopia** (Hill et al., 2016) and **Tanzania** (Younger et al., 2016)
  - Nine lower middle-income countries: **Armenia** (Younger and Khachatryan, 2016), **Bolivia** (Paz-Arauco et al., 2014), **El Salvador** (Beneke, Lustig and Oliva, 2014), **Ghana** (Younger et al., 2015), **Guatemala** (Cabrera, Lustig and Moran, 2015), **Honduras** (Castañeda and Espino, 2015), **Indonesia** (Afkar et al., 2016), **Sri Lanka** (Arunatilake et al., 2016), and **Tunisia** (Shimeles et al., 2016)
  - Eleven upper middle-income countries: **Brazil** (Higgins and Pereira, 2014), **Colombia** (Lustig and Melendez, 2016), **Costa Rica** (Sauma and Trejos, 2014), **Dominican Republic** (Aristy-Escuder et al., 2016), **Ecuador** (Llerena et al., 2015), **Georgia** (Cancho and Bondarenko, 2016), **Jordan** (Alam et al., 2016), **Mexico** (Scott, 2014), **Peru** (Jaramillo, 2014), **Russia** (Lopez-Calva et al., 2016), and **South Africa** (Inchauste et al., 2016)
  - Two high-income countries: **Chile** (Martinez-Aguilar et al., 2016), and **Uruguay** (Bucheli et al., 2014).
  - One unclassified: **Argentina** (Rossignolo, 2016),

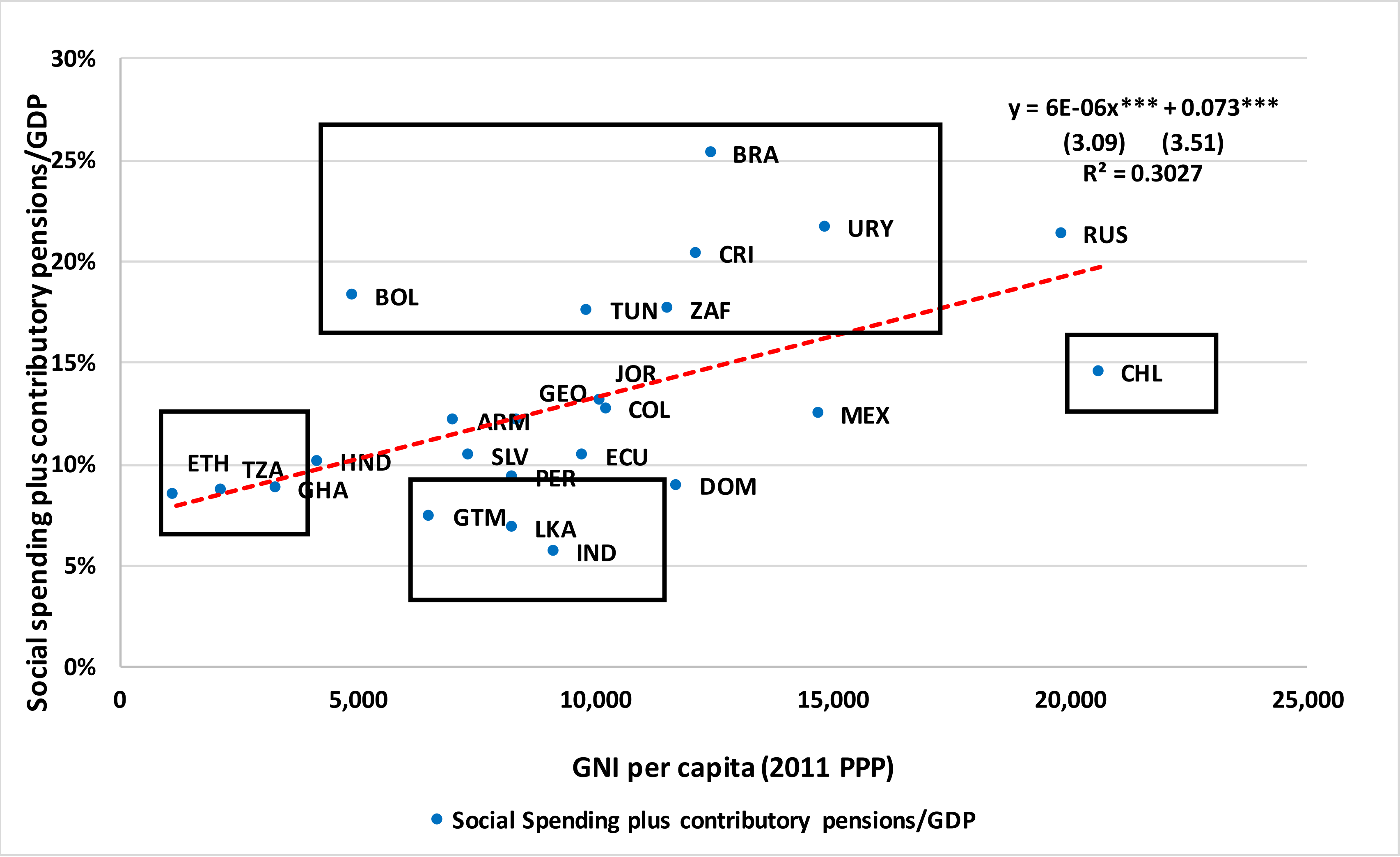
SIZE AND COMPOSITION OF GOVERNMENT REVENUES AND SPENDING

More social spending, more redistribution



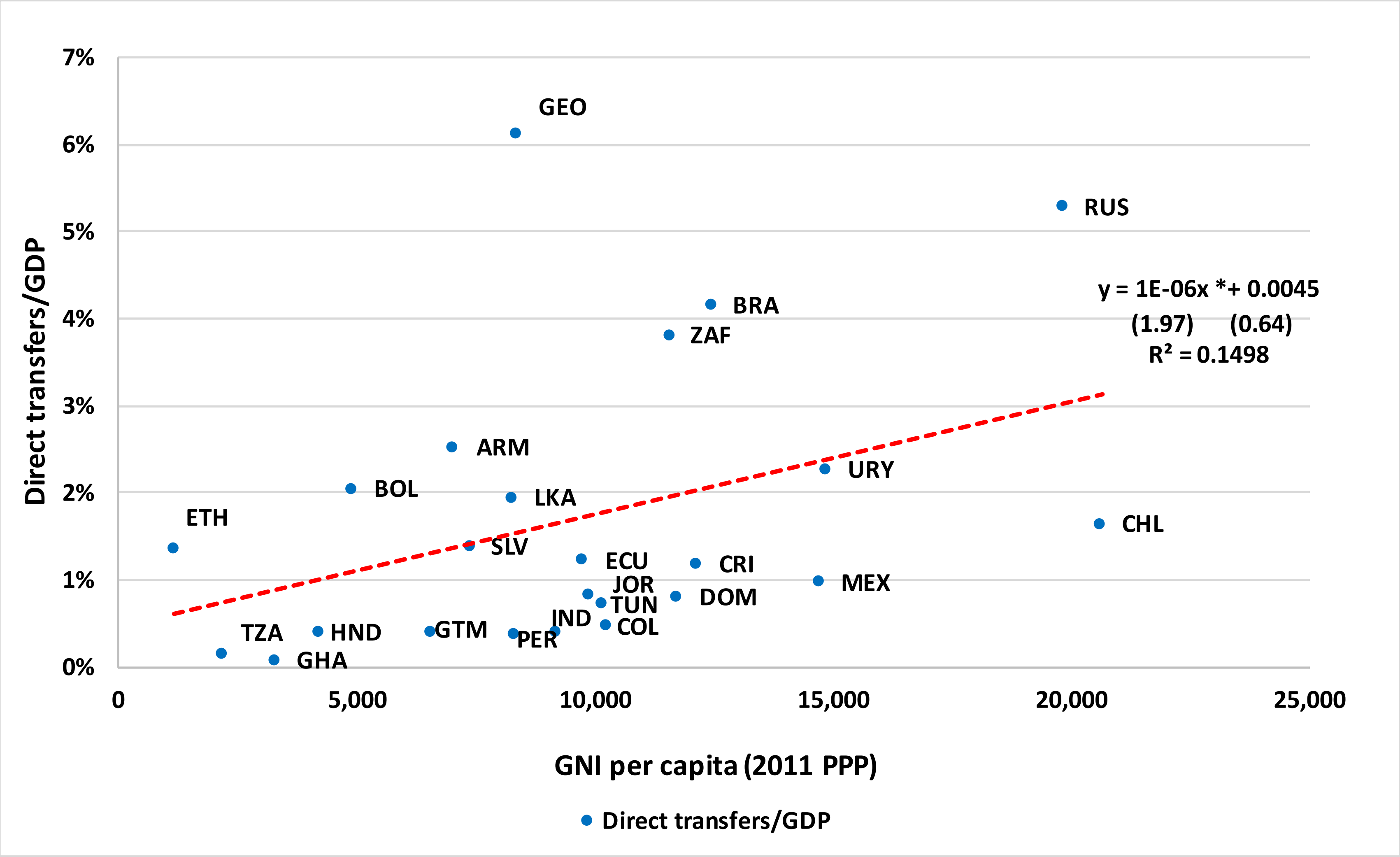
Source: Lustig (2016)

Social spending/GDP increases with income (Gross National Income per capita)



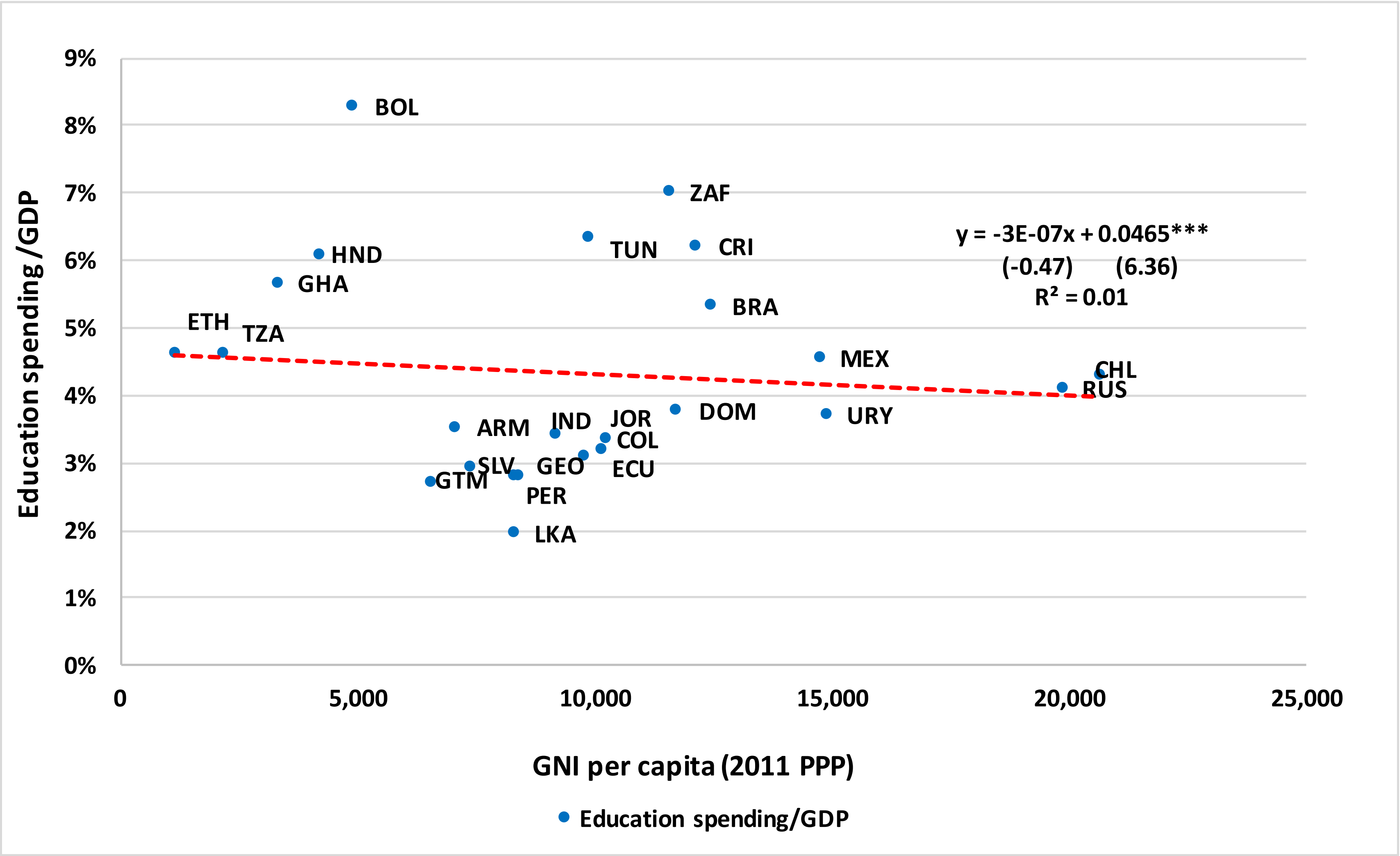
Source: Lustig (2016)

Direct transfers/GDP vs. GNI per capita



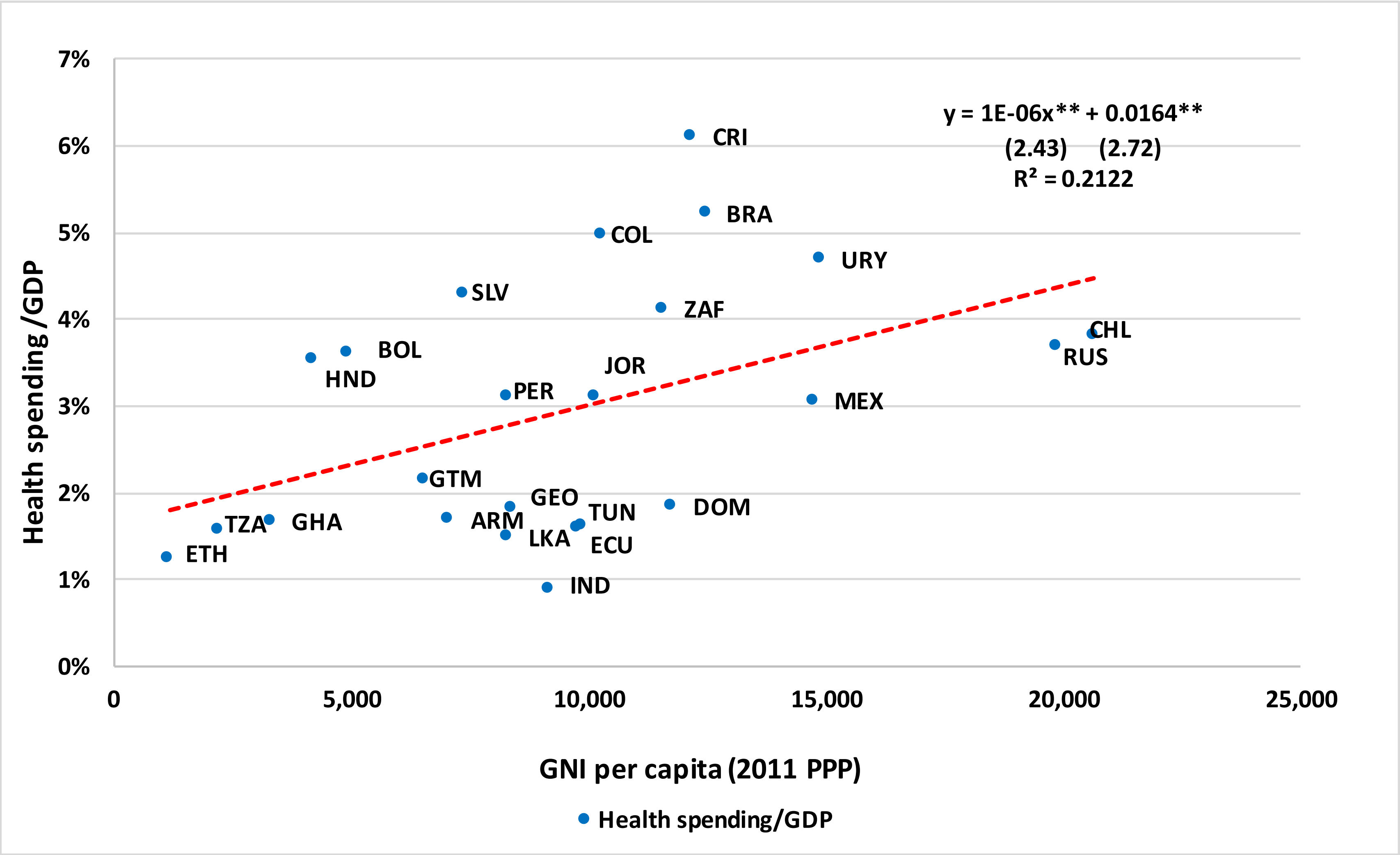
Source: Lustig (2016)

Education spending/GDP vs. GNI per capita



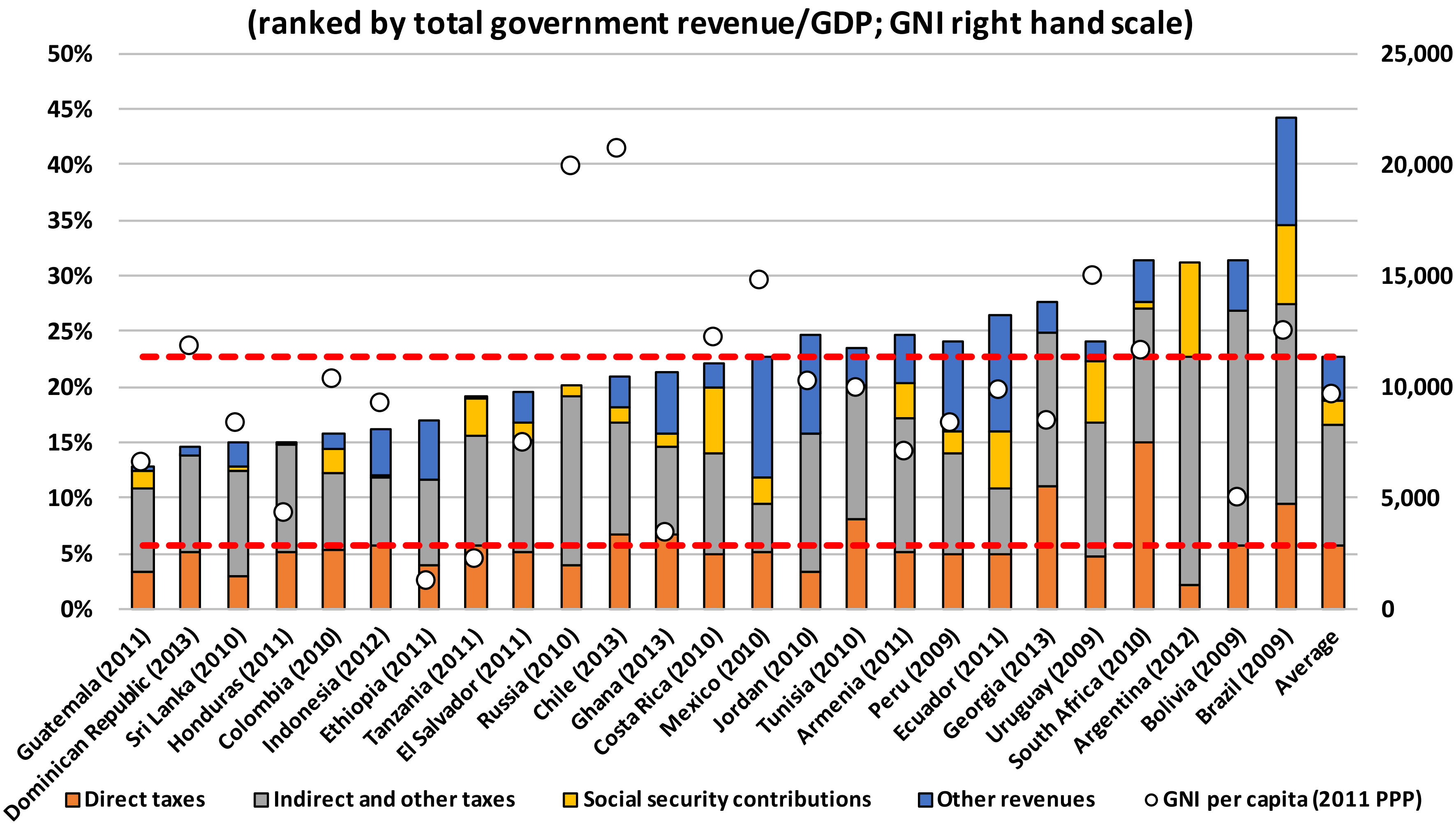
Source: Lustig (2016)

Health spending/GDP vs. GNI per capita



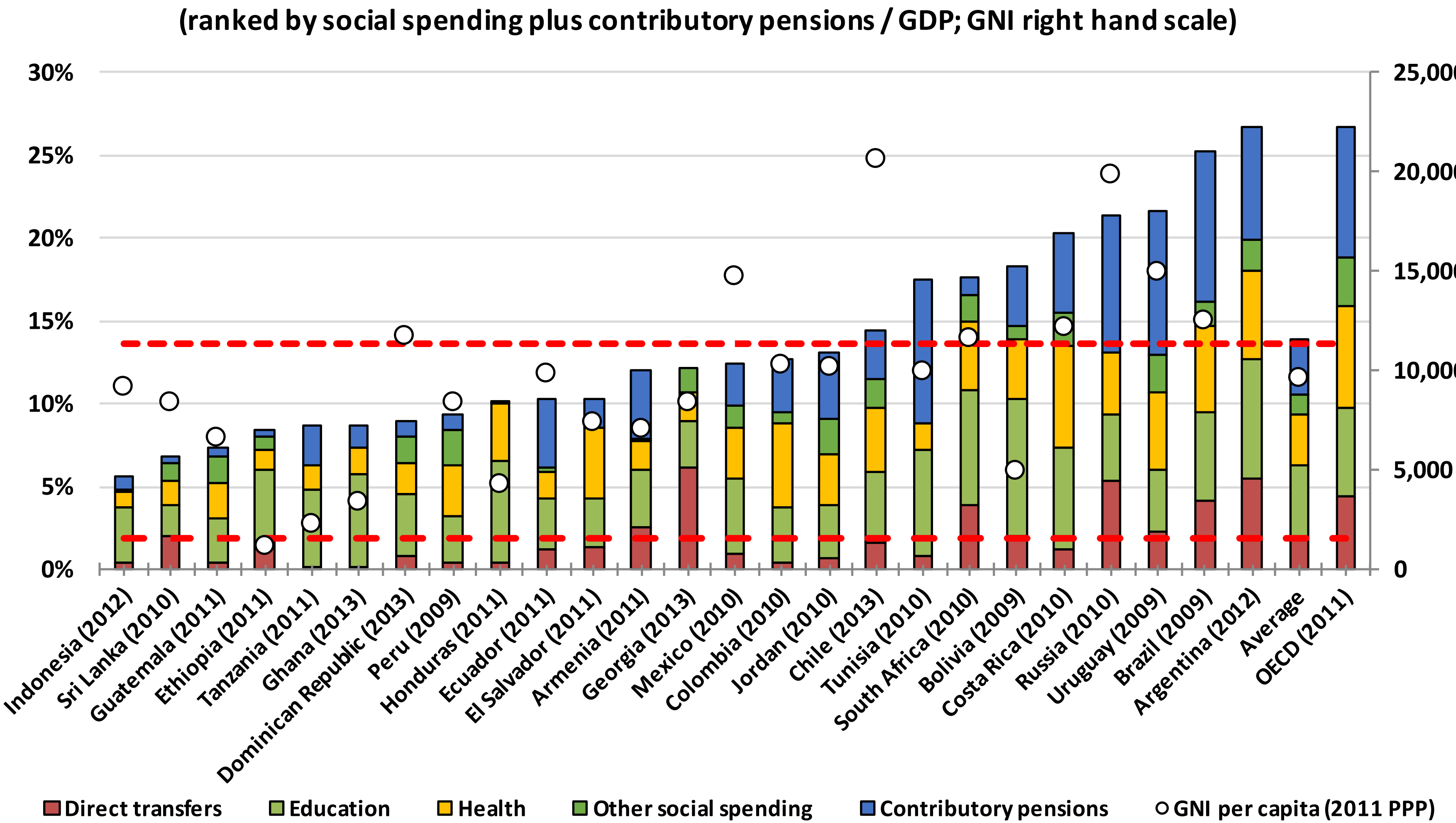
Source: Lustig (2016)

Composition of total government revenues as a share of GDP (circa 2010)



Source: Lustig (2016)

Composition of social spending as a share of GDP (circa 2010)



Source: Lustig (2016)

FISCAL REDISTRIBUTION

CEQ Assessment: **Income Concepts**

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MARKET INCOME

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FINAL INCOME

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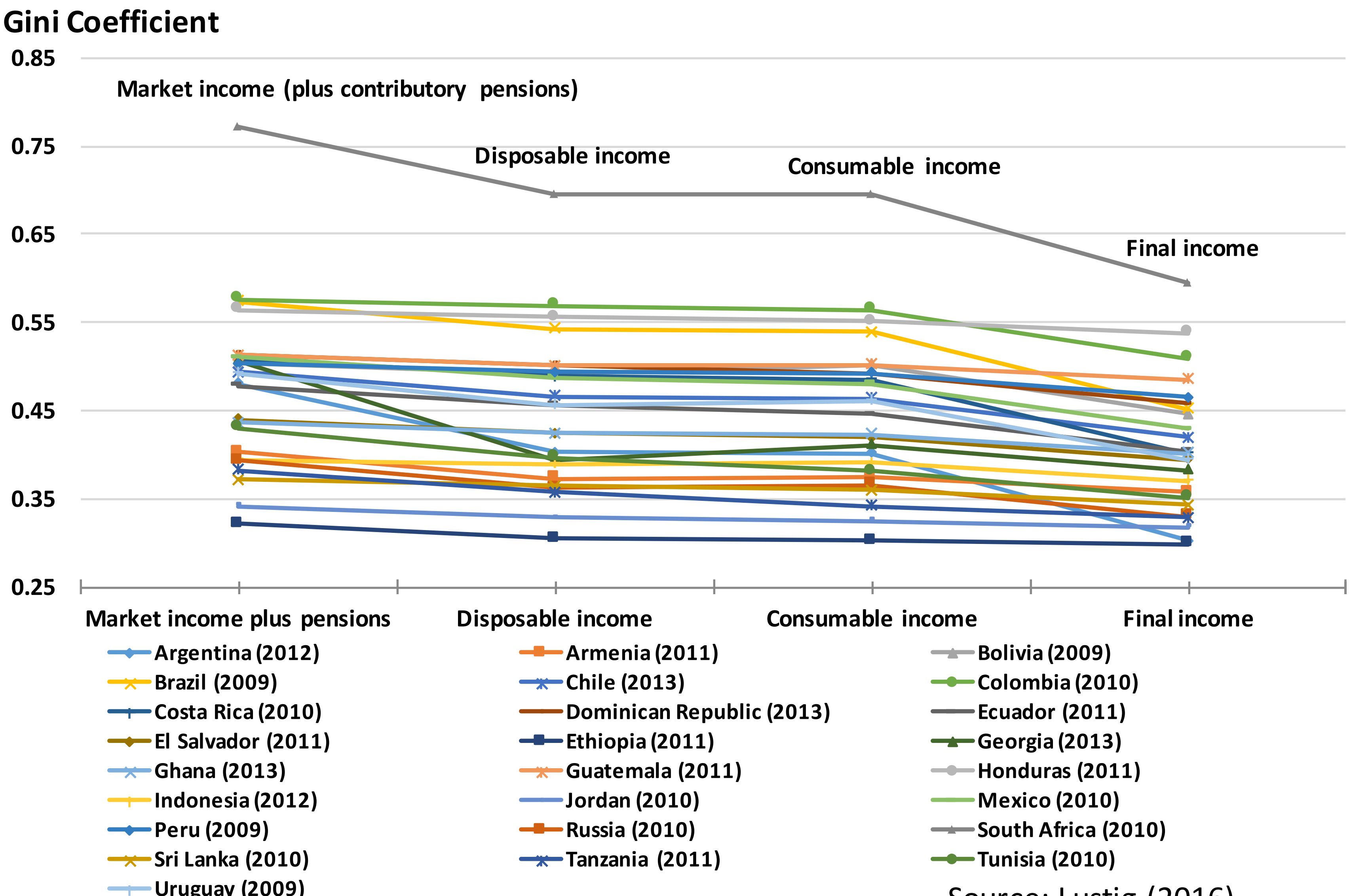
Inequality

Fiscal Policy and Inequality – Contributory pensions as deferred income



Source: Lustig (2016)

Fiscal Policy and Inequality – Contributory pensions as direct transfers

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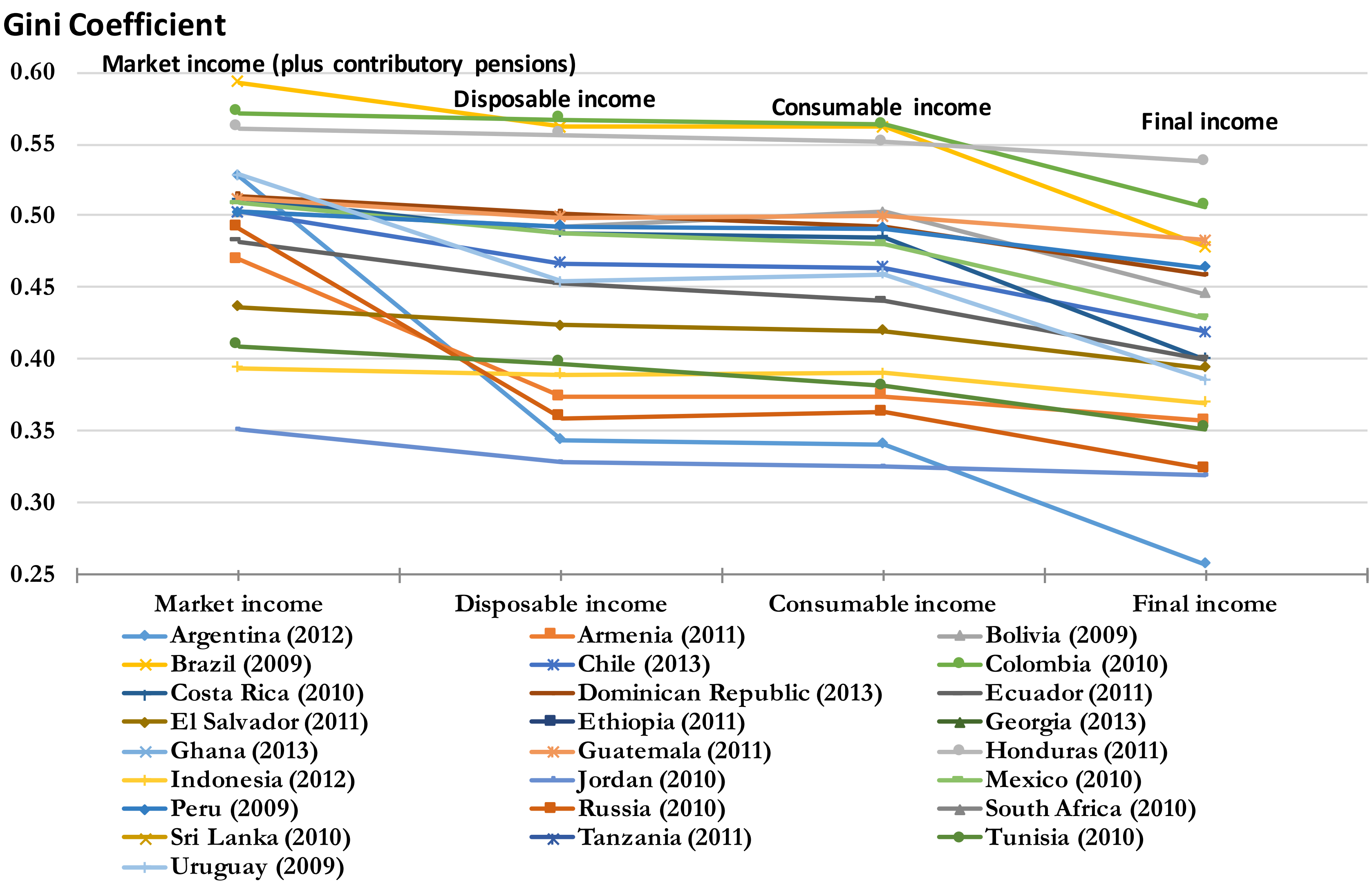
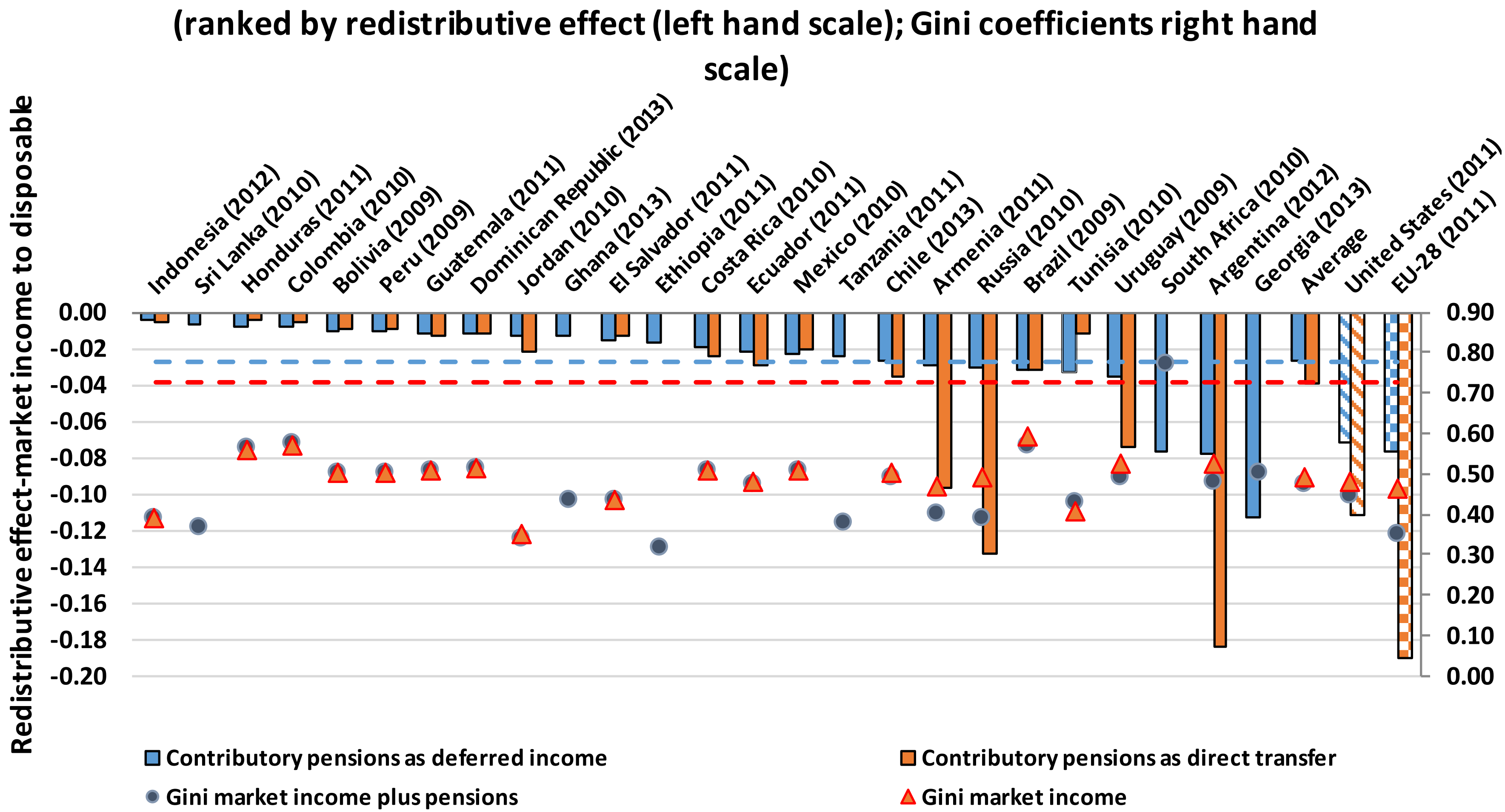


Source: Lustig (2016)

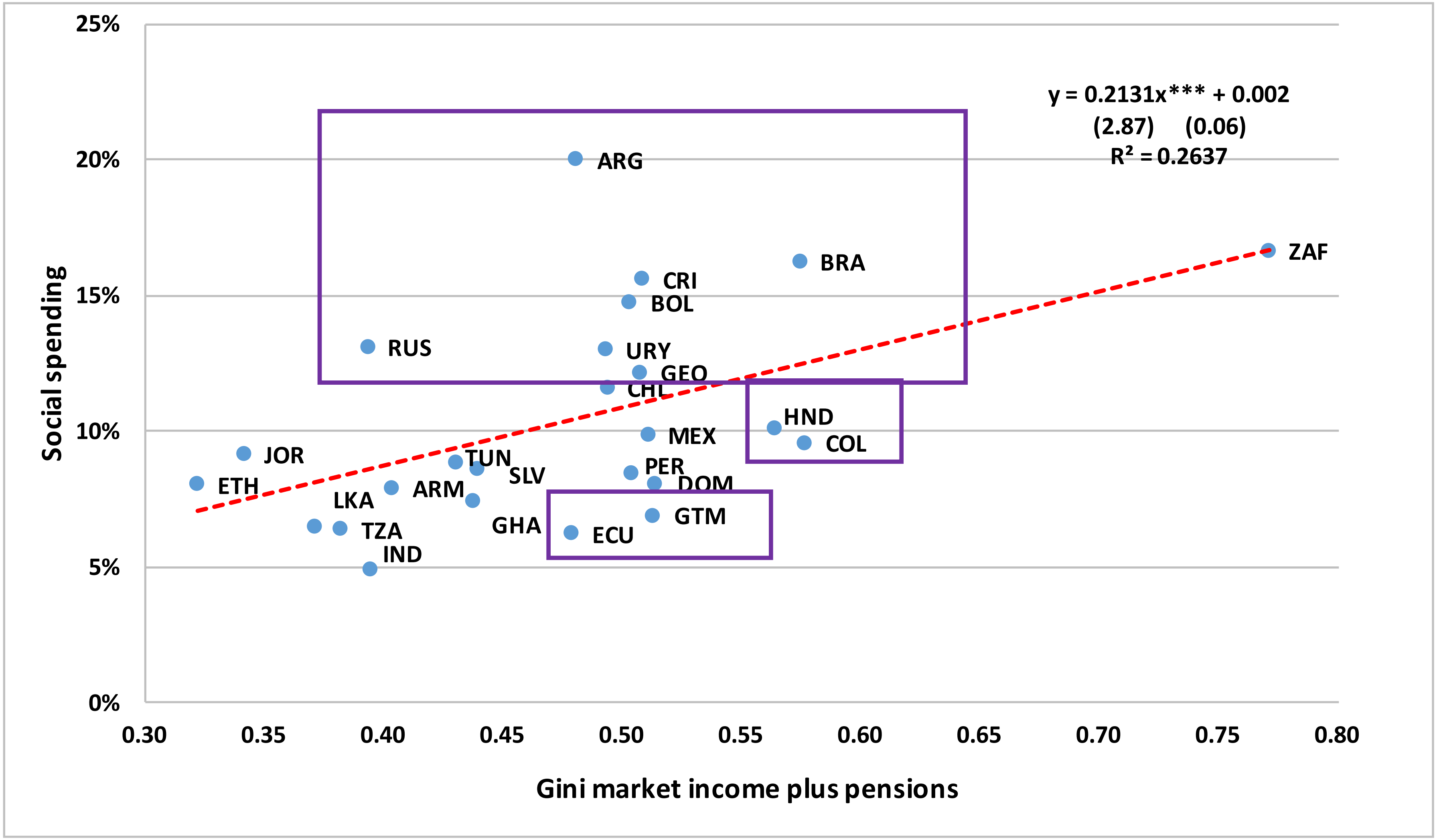
Redistributive effect

(Change in Gini points: market income plus pensions and market income to disposable income, circa 2010)



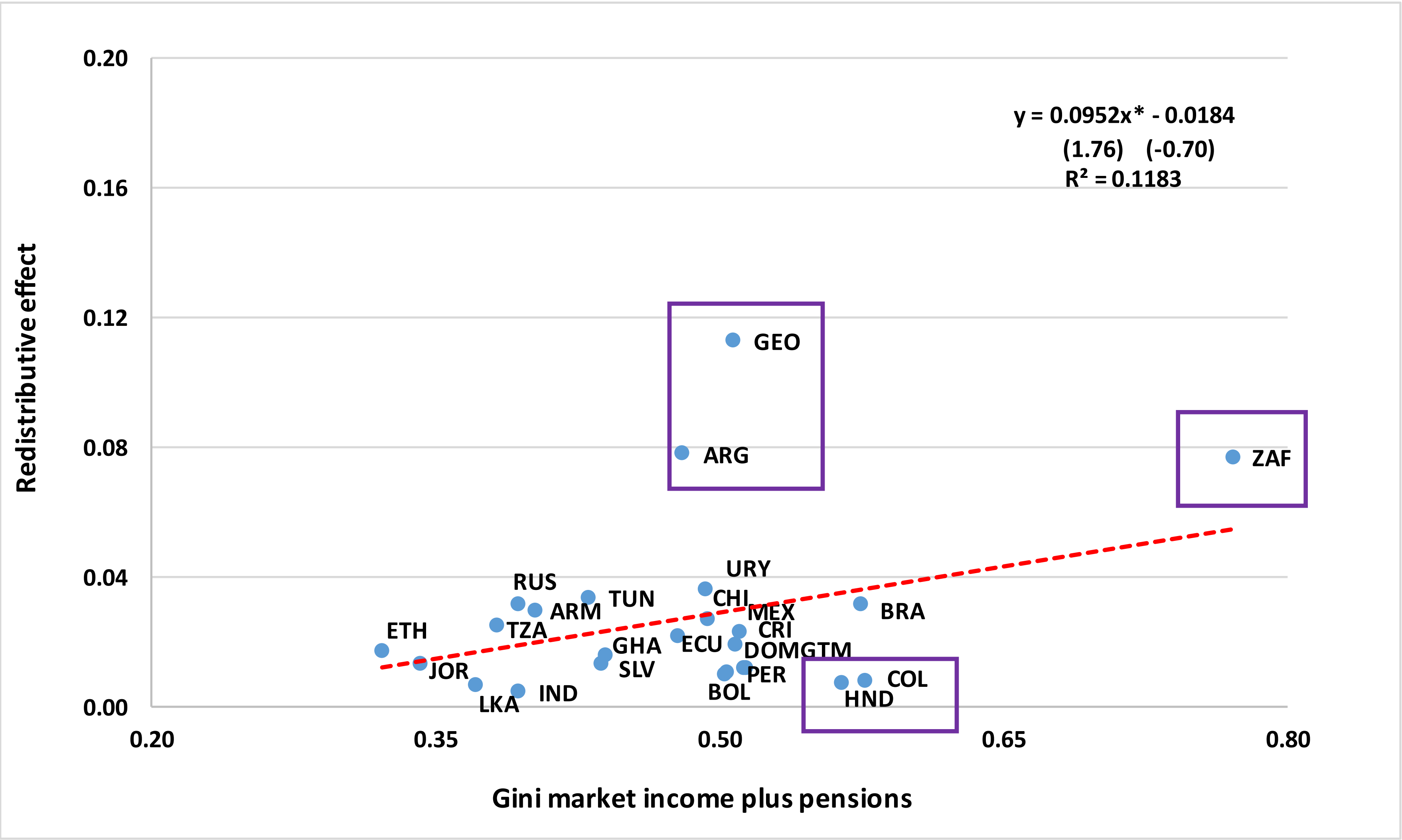
Source: Lustig (2016)

More unequal, more social spending/GDP
No "Robin Hood Paradox"



Source: Lustig (2016)

More unequal, more redistribution
No “Robin Hood Paradox”



Source: Lustig (2016)

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In sum…

- In NO country, inequality increases as a result of taxes, subsidies and social spending

➢ Fiscal policy is always equalizing

➢ The more unequal, the more fiscal redistribution

Which fiscal instruments are equalizing and which are not?

- Rely on the sign of the "marginal contribution"
- The marginal contribution equals the difference in the reduction in inequality observed without the fiscal instrument of interest (and all the others in place) and with it (and all the others in place)
  - Positive means it is equalizing
  - Negative means it is unequalizing
  - Zero means it leaves inequality unchanged
  - The following tables uses the change in Gini points to measure fiscal redistribution

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Marginal Contributions (contributory pensions as deferred income) – Low-income and lower-middle-income economies

	Low-income Economies	Lower-middle-income economies					
	Tanzania (2011)	Armenia (2011)	Bolivia (2009)	El Salvador (2011)	Ghana (2013)	Indonesia (2012)	Sri Lanka (2010)
Redistributive effect (from Gini market income plus pensions to *final* income)	0.0534	0.1125	0.0646	0.0356	0.0349	0.0238	0.0278
Marginal contribution							
Direct taxes	-0.0012	0.020	--	0.0039	-0.0057	0.0000	0.0025
Direct transfers	0.0009	0.091	0.0099	0.0057	0.0011	0.0037	0.0041
Indirect taxes	0.0175	0.000	0.0004	0.0012	0.0016	-0.0022	0.0006
Indirect subsidies	-0.0033	-0.001	0.0004	0.0011	-0.0008	0.0014	0.0051
Education	0.0116	0.013	0.0340	0.0141	0.0085	0.0194	0.0105
Health	0.0016	0.003	0.0237	0.0105	0.0073	0.0031	0.0056
Kakwani							
Direct taxes	0.4789	0.096	--	0.3574	not available	--	0.5458
Direct transfers	0.2791	0.660	0.0713	0.5001	0.8066	0.6397	0.7572
Indirect taxes	0.0992	-0.129	-0.1259	-0.0182	0.0021	-0.0420	-0.0063
Indirect subsidies	-0.2126	0.381	0.1311	0.1666	-0.0115	0.0560	0.3056
Education	0.2641	not available	0.5076	0.5655	not available	0.3630	0.3892
Health	0.2064	0.500	0.5360	0.3126	not available	0.2730	0.3963
Relative size							
Direct taxes	1.3%	4.5%	--	1.7%	4.6%	--	0.5%
Direct transfers	0.4%	18.4%	2.1%	1.2%	0.2%	0.7%	0.6%
Indirect taxes	13.1%	12.0%	7.8%	7.3%	6.3%	6.8%	7.4%
Indirect subsidies	1.2%	0.0%	0.7%	0.9%	2.1%	8.2%	2.0%
Education	7.5%	3.1%	7.7%	2.6%	6.0%	6.2%	3.2%
Health	2.3%	1.5%	5.2%	3.6%	3.1%	1.6%	1.6%
All taxes – all transfers	3.1%	-6.5%	-7.9%	0.8%	-0.5%	-9.8%	0.4%

The unequalizing effect appear in red font and cases where microdata is unavailable and mc is calculated based on the information by deciles are highlighted in blue.

Source: Lustig (2016)

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Marginal Contributions (contributory pensions as deferred income) – Upper-middle-income and high-income economies

	Upper-middle-income Economies										High-income Economies	
	Brazil (2009)	Colombia (2010)	Costa Rica (2010)	Ecuador (2011)	Georgia (2013)	Jordan (2010)	Mexico (2010)	Peru (2009)	Russia (2010)	South Africa (2010)	Chile (2013)	Uruguay (2009)
Redistributive effect (from Gini market income plus pensions to *final* income)	0.1221	0.0677	0.1307	0.0747	0.1244	0.0230	0.0831	0.0418	0.0629	0.1758	0.0740	0.1018
Marginal contribution												
Direct taxes	0.0143	-0.0003	0.0139	0.0047	0.0221	0.0071	0.0151	0.0061	0.0139	0.0430	0.0120	0.0186
Direct transfers	0.0148	0.0057	0.0095	0.0157	0.1002	0.0052	0.0094	0.0044	0.0203	0.0517	0.0190	0.0199
Indirect taxes	0.0113	-0.0004	0.0118	0.0062	-0.0141	-0.0014	0.0053	0.0069	-0.0009	0.0127	0.0040	0.0019
Indirect subsidies	0.0005	0.0049	--	0.0056	0.0004	0.0042	0.0032	--	0.0001	--	0.0023	--
Education	0.0509	0.0268	0.0393	0.0283	0.0199	0.0155	0.0326	0.0175	0.0207	0.0490	0.0321	0.0289
Health	0.0292	0.0265	0.0342	0.0119	0.0077	-0.0087	0.0163	0.0084	0.0127	0.0433	0.0135	0.0348
Kakwani												
Direct taxes	0.2490	not available	0.1052	0.4017	0.1819	0.5941	0.2411	0.3853	0.1042	0.1254	0.4520	0.2245
Direct transfers	0.5069	0.7831	0.9104	0.8385	0.7063	0.5497	0.7931	0.9612	0.5927	1.0421	0.8243	0.9367
Indirect taxes	-0.0179	-0.0961	0.0053	0.0363	-0.2298	-0.0664	0.0129	0.0527	-0.0724	-0.0828	-0.0273	-0.0753
Indirect subsidies	0.8373	0.5316	--	0.2131	0.3716	0.1512	0.2457	--	0.2128	--	0.4969	--
Education	0.7087	not available	0.5644	0.6930	0.5414	0.4784	0.5816	0.6566	0.4978	0.8169	0.6641	0.5888
Health	0.6914	not available	0.5442	0.5910	0.6360	0.0557	0.4608	0.3109	0.3740	0.8275	0.5930	0.5813
Relative size												
Direct taxes	4.2%	0.2%	6.6%	1.6%	9.8%	1.3%	5.0%	1.4%	0.0704	15.0%	2.3%	6.1%
Direct transfers	5.1%	0.9%	1.3%	2.1%	19.4%	1.3%	1.3%	0.5%	0.0467	5.4%	2.7%	2.3%
Indirect taxes	12.9%	1.9%	10.0%	6.3%	12.8%	3.1%	6.0%	7.6%	0.0803	14.1%	10.3%	7.9%
Indirect subsidies	0.1%	1.1%	--	4.1%	0.4%	3.5%	2.0%	--	0.0009	--	0.5%	--
Education	10.6%	4.7%	8.7%	4.6%	4.3%	3.6%	6.3%	2.7%	0.0445	6.9%	5.2%	5.6%
Health	4.8%	7.1%	8.0%	2.4%	1.9%	3.4%	4.3%	2.9%	0.0419	5.5%	3.2%	6.8%
All taxes - all transfers	-3.6%	-11.7%	-1.5%	-5.4%	-3.4%	-7.5%	-2.9%	2.9%	0.0169	11.2%	1.0%	-0.8%

Unequalizing effect appears in red font.

Source: Lustig (2016)

In sum…

- Direct taxes are equalizing except in Colombia, Ghana and Tanzania (surprised?)
- Direct transfers are always equalizing (phew!)
- Indirect taxes are more often than not equalizing (surprised?), except in Colombia, Georgia, Indonesia, Jordan and Russia
- Indirect subsidies are more often than not equalizing (surprised?), except in Armenia, Ghana, and Tanzania
- Education and health spending are always equalizing

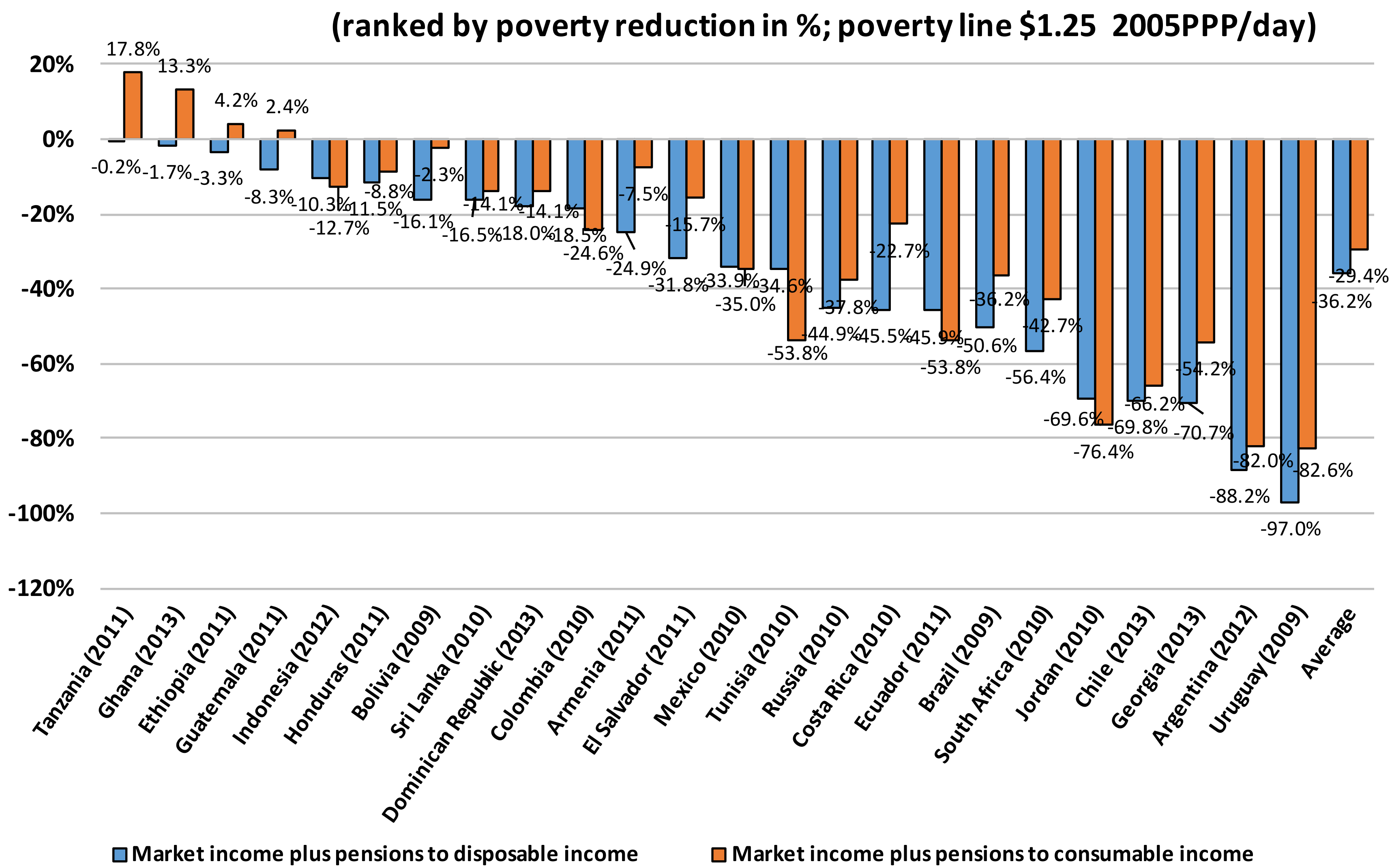
Poverty

- Fiscal policy can be equalizing but poverty increasing (in terms of the poor's ability to consume private goods and services):
  - 1.25/day line: Ethiopia, Ghana, Guatemala, Tanzania
  - 2.50/day line: Armenia, Bolivia, Ethiopia, Ghana, Guatemala, Honduras, Sri Lanka, Tanzania
  - 4/day line: all of the above plus Argentina, Brazil, Costa Rica and Tunisia
- This worrisome result stems mainly from consumption taxes

Lustig, Nora. 2016. "Fiscal Policy, Inequality, and the Poor in the Developing World." Tulane University, Economics Working Paper 1612, October.

Fiscal Policy and Poverty Reduction

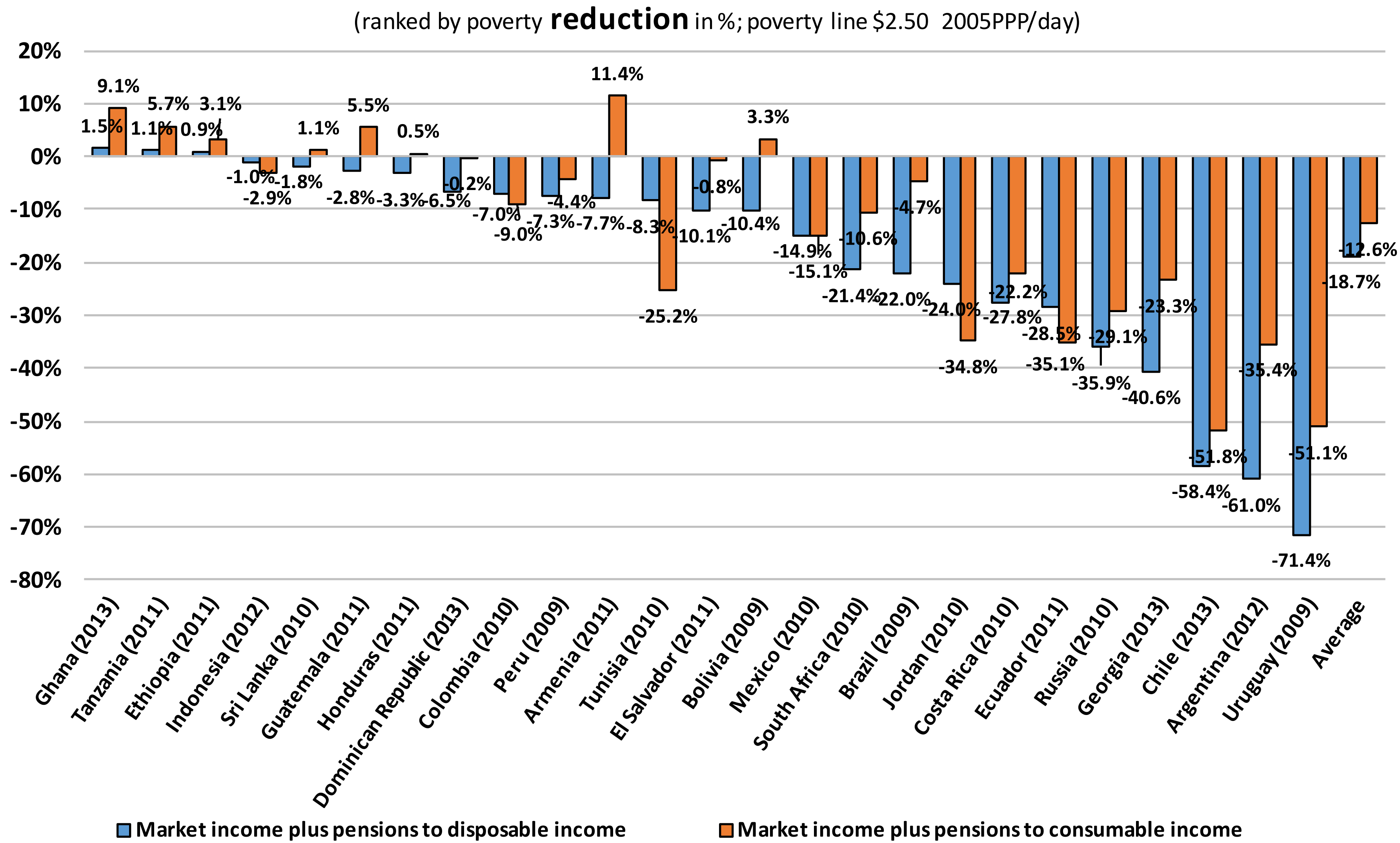
(Change in Headcount Ratio from Market to Consumable Income (Poverty line $1.25 / day 2005 ppp; Contributory Pensions as Deferred Income; in %)



Source: Lustig (2016)

Fiscal Policy and Poverty Reduction

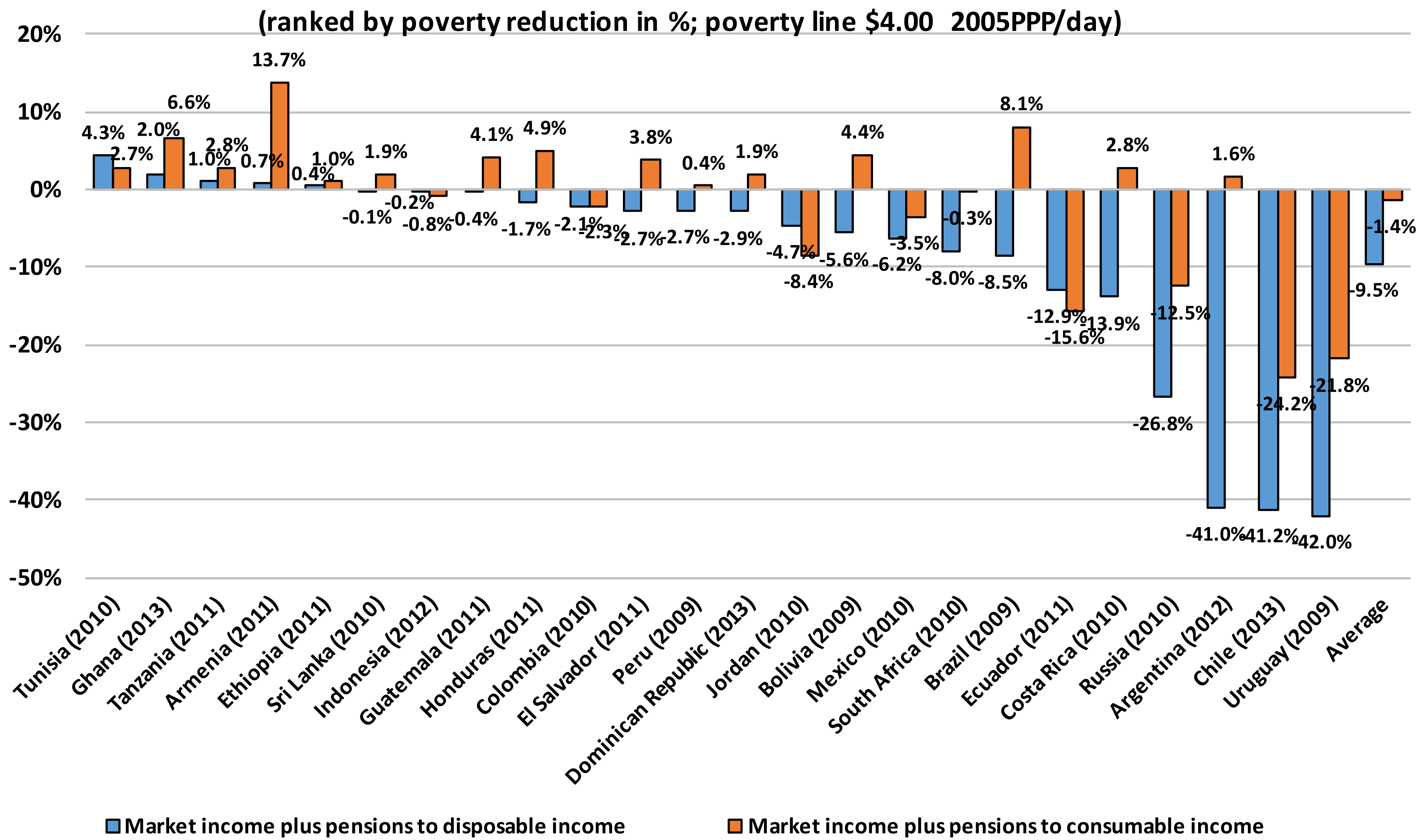
(Change in Headcount Ratio from Market to Consumable Income (Poverty line $2.50 / day 2005 ppp; Contributory Pensions as Deferred Income; in %)



Source: Lustig (2016)

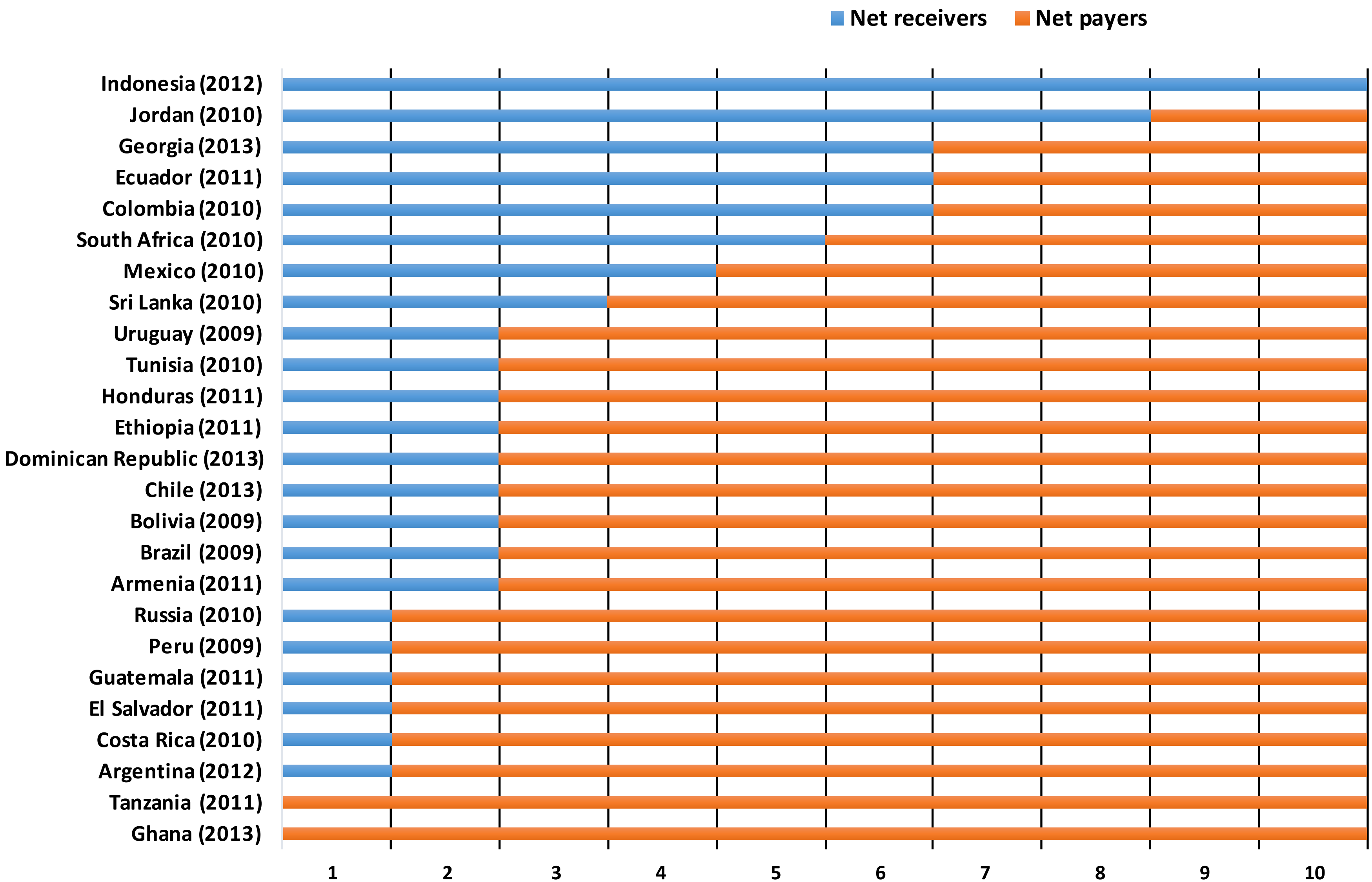
Fiscal Policy and Poverty Reduction

(Change in Headcount Ratio from Market to Consumable Income (Poverty line $4.00 / day 2005 ppp; Contributory Pensions as Deferred Income; in %)



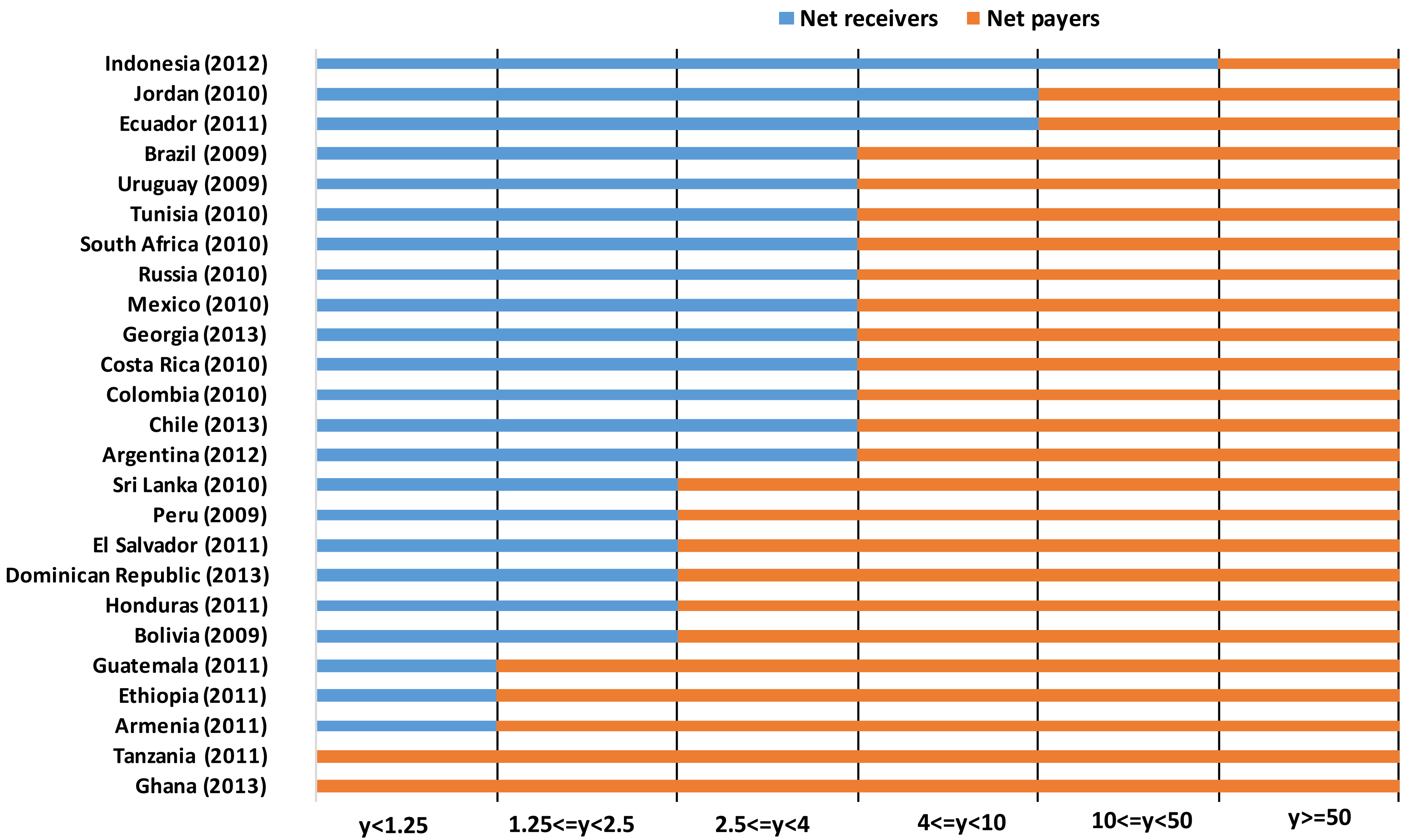
Source: Lustig (2016)

Net payers and net receivers (by decile; Contributory pensions as deferred income)



Source: Lustig (2016)

Net payers and net receivers (by income groups; Contributory pensions as deferred income)

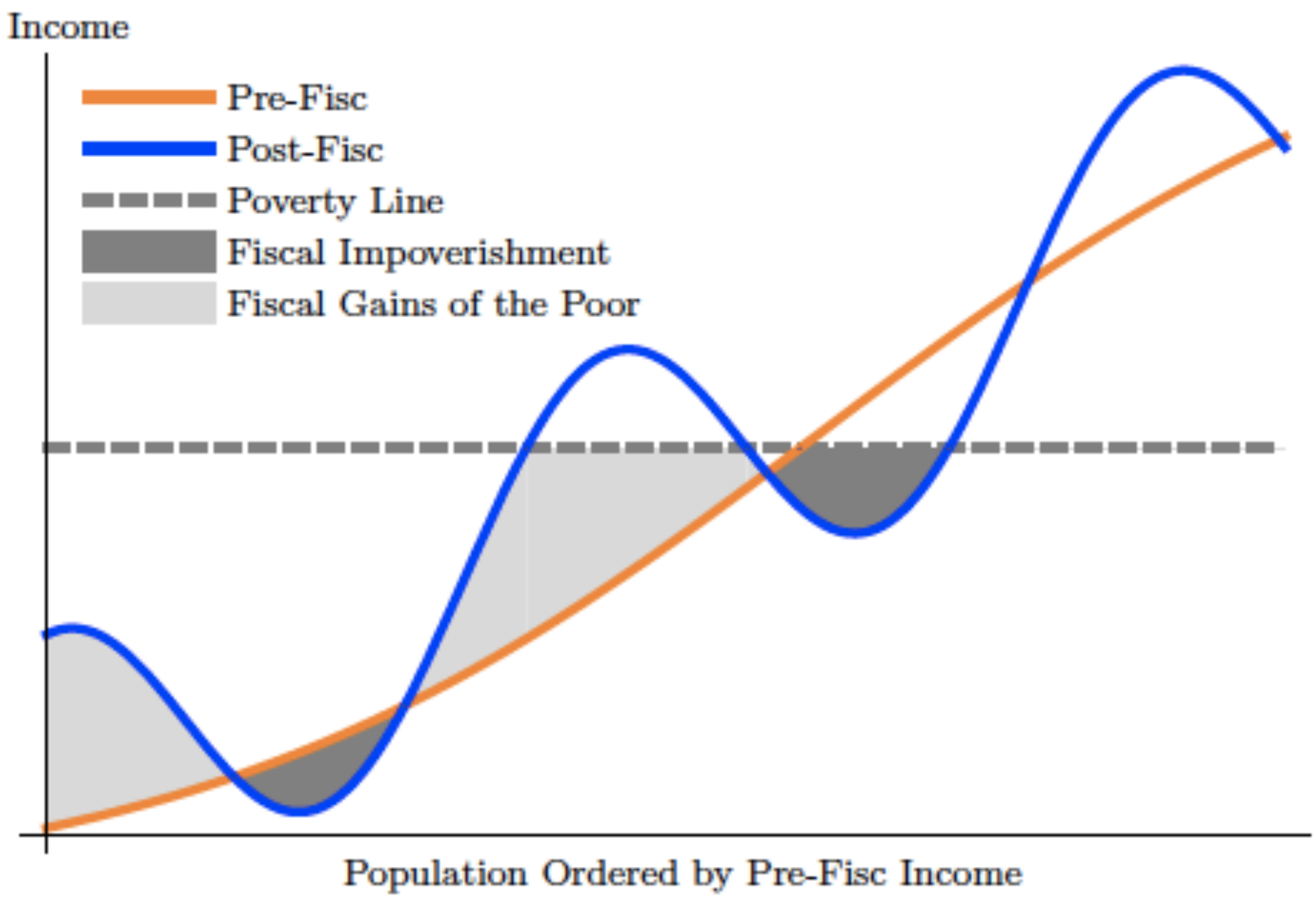


Source: Lustig (2016)

Analyzing the impact on traditional poverty indicators can be misleading

- Fiscal systems can show a reduction in poverty and yet a substantial share of the poor could have been impoverished by the combined effect of taxes and transfers

Higgins and Lustig (2016)



Higgins and Lustig. 2016. Can a poverty reducing and progressive tax and transfer system hurt the poor? *Journal of Development Economics* 122, 63-75, 2016

Domestic Resource Mobilization and the Poor

How frequently fiscal systems may be inequality reducing but at the same time leave the poor worse off in terms of their purchasing power of private goods and services?

Fiscal Impoverishment
(Market to Consumable Income)

Country (survey year)	Market income plus pensions Poverty headcount (%)	Change in poverty headcount (p.p.)	Market income plus pensions inequality (Gini)	Reynolds-Smolensky	Change in inequality (▲Gini)	Fiscally impoverished as % of population	Fiscally Impoverished as % of consumable income poor
Panel A: Upper-middle income countries, using a poverty line of $2.5 2005 PPP per day							
Brazil (2009)	16.8	-0.8	57.5	4.6	-3.5	5.6	34.9
Chile (2013)	2.8	-1.4	49.4	3.2	-3.0	0.3	19.2
Ecuador (2011)	10.8	-3.8	47.8	3.5	-3.3	0.2	3.2
Mexico (2012)	13.3	-1.2	54.4	3.8	-2.5	4.0	32.7
Peru (2011)	13.8	-0.2	45.9	0.9	-0.8	3.2	23.8
Russia (2010)	4.3	-1.3	39.7	3.9	-2.6	1.1	34.4
South Africa (2010)	49.3	-5.2	77.1	8.3	-7.7	5.9	13.3
Tunisia (2010)	7.8	-0.1	44.7	8.0	-6.9	3.0	38.5
Brazil (2009)	16.8	-0.8	57.5	4.6	-3.5	5.6	34.9
Chile (2013)	2.8	-1.4	49.4	3.2	-3.0	0.3	19.2

Higgins and Lustig (2016)

Fiscal Impoverishment
(Market to Consumable Income)

Country (survey year)	Market income plus pensions Poverty headcount (%)	Change in poverty headcount (p.p.)	Market income plus pensions inequality (Gini)	Reynolds-Smolensky	Change in inequality (▲Gini)	Fiscally mpoverished as % of population	Fiscally Impoverished as % of consumable income poor
Panel B: Lower-middle income countries, using a poverty line of $1.25 2005 PPP per day							
Armenia (2011)	21.4	-9.6	47.4	12.9	-9.3	6.2	52.3
Bolivia (2009)	10.9	-0.5	50.3	0.6	-0.3	6.6	63.2
Dominican Republic (2013)	6.8	-0.9	50.2	2.2	-2.2	1.0	16.3
El Salvador (2011)	4.3	-0.7	44.0	2.2	-2.1	1.0	27.0
Ethiopia (2011)	31.9	2.3	32.2	2.3	-2.0	28.5	83.2
Ghana (2013)	6.0	0.7	43.7	1.6	-1.4	5.1	76.6
Guatemala (2010)	12.0	-0.8	49.0	1.4	-1.2	7.0	62.2
Indonesia (2012)	12.0	-1.5	39.8	1.1	-0.8	4.1	39.2
Sri Lanka (2010)	5.0	-0.7	37.1	1.3	-1.1	1.6	36.4
Tanzania (2011)	43.7	7.9	38.2	4.1	-3.8	50.9	98.6

Higgins and Lustig (2016)

- Fifteen of the eighteen countries with a reduction in poverty and inequality due to the tax and transfer system experienced various degrees of fiscal impoverishment.
- In ten countries—Armenia, Bolivia, Brazil, El Salvador, Guatemala, Indonesia, Mexico, Russia, Sri Lanka, and Tunisia—between one-quarter and two-thirds of the post-fisc poor lost income to the fiscal system.
- In the three countries where the headcount ratio rose (Ethiopia, Ghana and Tanzania), the proportion of the poor who were impoverished by the fiscal system is staggering (above 75 percent).
- In Armenia, Ethiopia, Indonesia, Tunisia, and Russia, between 25 and 50% are still fiscally impoverished when the monetized value of education and health services are included as transfers

Lustig. 2016. "The SDG's, Domestic Resource Mobilization and the Poor," background paper for the Expert Group Meeting: "Strategies for eradicating poverty to achieve sustainable development for all," United Nations, New York, June.

- Extreme care must be taken with emphasizing domestic resource mobilization to achieve SDGs
- Must assess the impact on the poor of tax and subsidy reforms, otherwise one may be taking away from the poor more than is transferred to them
- Impact on the poor of increasing taxes requires the use of adequate indicators; conventional measures of inequality and poverty can be *awfully* misleading
- Fiscal Impoverishment Index fulfills all the requirements to obtain an accurate assessment of the impact of fiscal changes on the poor

Lustig. 2016. "The SDG's, Domestic Resource Mobilization and the Poor," background paper for the Expert Group Meeting: "Strategies for eradicating poverty to achieve sustainable development for all," United Nations, New York, June.

How pro-poor is spending on education and health

Classification

A = Pro-poor and equalizing, per capita spending declines with income

B = Neutral in absolute terms and equalizing, same per capita for all

C = Equalizing but not pro-poor, per capita spending as a share of market income declines with income

D = Unequalizing, per capita spending as a share of market income increases with income

Progressivity and pro-poorness of education and health spending - Low-income economies

Low-income Economies	Education			Pre-school			Primary			Secondary			Tertiary				Health		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D	A	B	C
Ethiopia (2011)			+	--				+				+				+			+
Tanzania (2011)	--			+			+				+					+			+

-- = not available

Source: Lustig (2016)

Progressivity and pro-poorness of education and health spending - Lower-middle-income economies

Lower-middle-income Economies	Education			Pre-school			Primary			Secondary			Tertiary				Health		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D	A	B	C
Armenia (2011)	+			+			+								+			+	
Bolivia (2009)		+		+			+			+					+			+	
El Salvador (2011)	+			+			+				+				+				+
Ghana (2013)				+			+				+					+		+	
Guatemala (2011)		+		+			+				+					+			+
Honduras (2011)		+		+			+				+				+			+	
Indonesia (2012)		+					+				+				+				+
Sri Lanka (2010)		+		--				--			--				+			+	
Tunisia (2010)		+		--			--			--					+			+	

-- = not available

Source: Lustig (2016)

Progressivity and pro-poorness of education and health spending – Upper-middle-income economies

Upper-middle-income Economies	Education			Pre-school			Primary			Secondary			Tertiary				Health			
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D	A	B	C	D
Brazil (2009)	+			+			+			+					+		+			
Colombia (2010)	--			+			+			+					+		--			
Costa Rica (2010)	--			+			+			+					+		--			
Dominican Republic (2013)	+			+			+								+		+			
Ecuador (2011)	+			--			+					+	--				+			
Georgia (2013)		+			+		--			--					+		+			
Jordan (2010)	+			+			+			+					+				+	
Mexico (2010)	+			+			+			+					+			+		
Peru (2009)	+			+			+			+					+				+	
Russia (2010)	--			--			--			--			--				--			
South Africa (2010)		+		+			+			+					+		+			

-- = not available

Source: Lustig (2016)

Progressivity and pro-poorness of education and health spending – High-income economies

High-income Economies	Education			Pre-school			Primary			Secondary			Tertiary				Health		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	D	A	B	C
Argentina (2012)*	+			+			--			--					+		+		
Chile (2013)	+			+			+			+					+		+		
Uruguay (2009)	+			+			+			+					+		+		

-- = not available
* unclassified

Source: Lustig (2016)

Main results

- Education spending on primary and secondary schooling per person tends to decline with income ("pro-poor") or be the same across the income distribution…
- ... with the exception of Ethiopia where although equalizing, per capita spending on secondary education increases with income
  - Are middle-classes opting out in middle and high income countries?
- Tertiary education spending is not pro-poor but it is equalizing except for Ethiopia, Ghana, Guatemala and Tanzania, where it is unequalizing

Source: Lustig (2016)

Main results

- Health spending per person tends to decline with income (“pro-poor”) or be the same across the income distribution….
- ….except for El Salvador, Ethiopia, Guatemala, Indonesia, Jordan, Peru and Tanzania where although not unequalizing per capita spending increases with income.

Source: Lustig (2016)

In conclusion…

- Fiscal systems are always equalizing but can often reduce the purchasing power of the poor
  - Warning: unintended consequence of the domestic resource mobilization agenda can be making the poor worse off
- Spending on education and health is often pro-poor and almost universally equalizing
  - Warning: is this favorable result because middle-classes and the rich are opting out?
- Reassuring results
  - Redistributive effect increases with social spending
  - Social spending as a share of GDP increases with inequality
  - The more unequal, the more redistribution

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(in parenthesis: survey year; C=consumption & I=income)

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Thank you!