Fiscal Policy, Inequality and the Poor in the Developing World

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Fiscal Policy and Redistribution in an Unequal Society
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www.commitmentoequity.org

CEQ Teams
(Year of Survey; C=consumption & I=income)(MWB Version)

1. **Argentina (2009, I):** Nora Lustig and Carola Pessino (CEQ Web Dec 2013) *Public Finance Review,* May 2014, Volume 42, Issue 3
2. **Armenia (2011; I):** Stephen Younger and Artsvi Khachatryan (May 31, 2014; paper)
3. **Bolivia (2009; I)**: Veronica Paz Arauco, George Gray-Molina, Wilson Jimenez and Ernesto Yañez (CEQ Web Dec 2013) *Public Finance Review,* May 2014, Volume 42, Issue 3
4. **Brazil (2009; I)**: Sean Higgins and Claudiney Pereira (CEQ Web Dec 2013) *Public Finance Review,* May 2014, Volume 42, Issue 3
5. **Chile (2009, I): Jaime Ruiz-Tagle and Dante Contreras (Oct. 25, 2014)**
6. **Colombia (2010, I): Marcela Melendez, Nora Lustig and Valentina Martinez (May 2014)**
7. **Costa Rica (2010; I)**: Pablo Sauma and Juan Diego Trejos (February 2014; paper)
8. **El Salvador (2011; I)**: Margarita Beneke, Nora Lustig and Jose Andres Oliva (March 11, 2014)
9. **Ethiopia (2010/11; C):** Ruth Hill, EyasuTsehaye, Tassew Woldehanna (Sept. 28, 2014)
10. **Guatemala (2011; I)**: Maynor Cabrera, Nora Lustig and Hilcias E. Moran (August 27, 2014)

10 **Indonesia (2012; C) :** Jon Jellema and Matthew Wai-Poi (Sept. 9, 2014)

11 **Jordan (2010; C) :** Morad Abdel-Halim, Shamma Adeeb Alam, Yusuf Mansur, Umar Serajuddin, Paolo Verme (May 16, 2014)

12 **Mexico (2010; I):** John Scott (CEQ Web Dec 2013) *Public Finance Review,* May 2014, Volume 42, Issue 3

13 **Peru (2009; I):** Miguel Jaramillo (CEQ Web Dec 2013) *Public Finance Review,* May 2014, Volume 42, Issue 3

14 **South Africa (2010; I)**: Ingrid Woolard, Precious Zikhali, Mashekwa Maboshe, Jon Jellema (Aug. 25, 2014)

15 **Sri Lanka (2009/10; C):** Nisha Arunatilake, Gabriela Inchauste and Nora Lustig (April 8, 2014; paper)

16 **United States (2011; I):** Sean Higgins, Nora Lustig, Whitney Ruble and Timothy Smeeding (paper Oct. 2014)

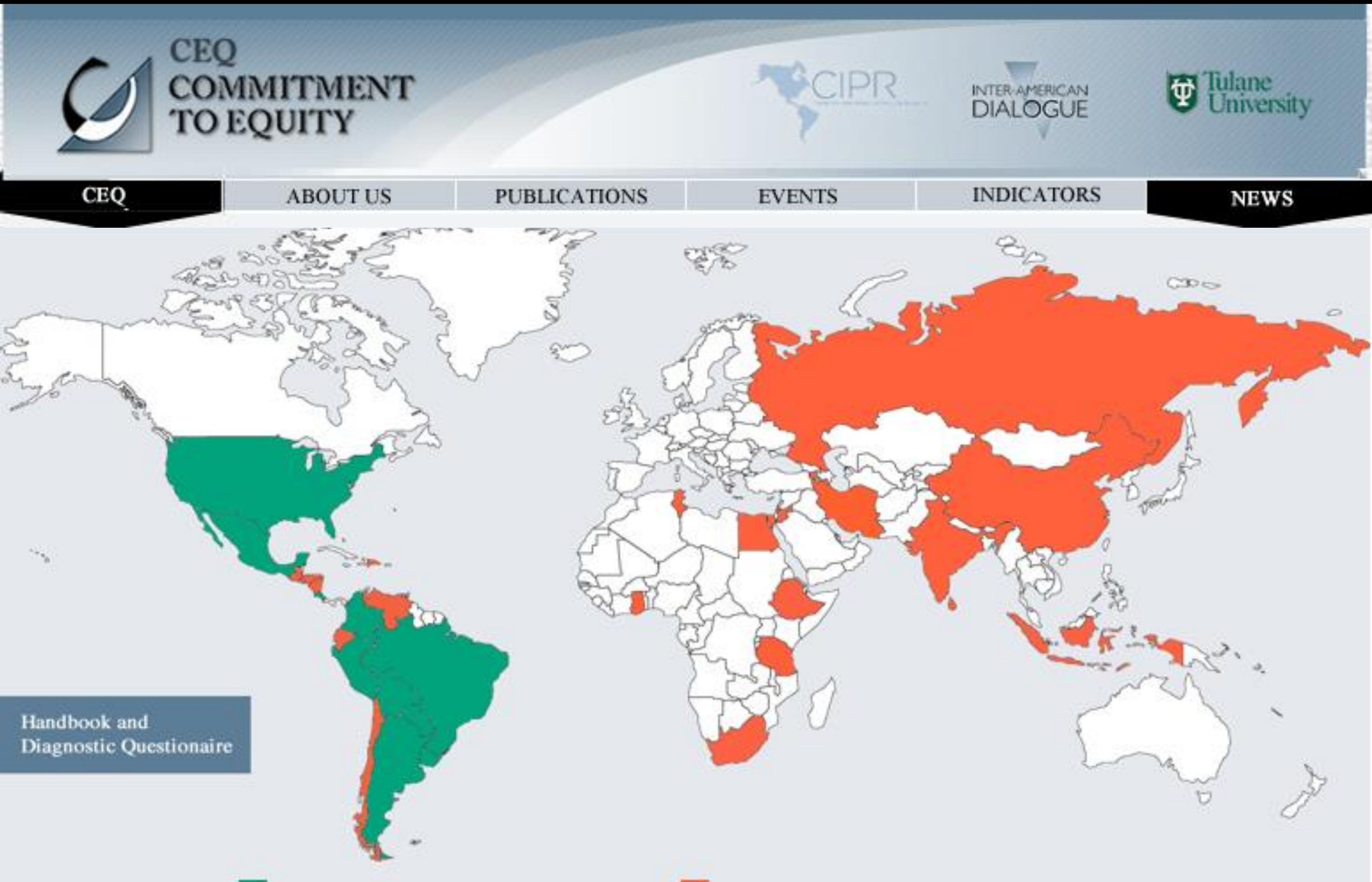
17 **Uruguay (2009; I):** Marisa Bucheli, Nora Lustig, Maximo Rossi and Florencia Amabile (CEQ Web Dec 2013) *Public Finance Review,* May 2014, Volume 42, Issue 3

Handbook

- Lustig, Nora and Sean Higgins. 2013. *Commitment to Equity Assessment (CEQ): Estimating the Incidence of Social Spending, Subsidies and Taxes. Handbook*. CEQ Working Paper No. 1, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, September.

Commitment to Equity Assessments (CEQ)

- Accounting Approach: no behavioral, no general equilibrium effects and no intertemporal effects
- Point-in-time
- Mainly average incidence; a few cases with marginal incidence
- 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
- Tax shifting assumptions are the standard ones
- Allocators vary => full transparency in the method used for each category, tax shifting assumptions, tax evasion
- Secondary sources are used to a minimum
- Handbook (Lustig and Higgins, 2013)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Basic elements of standard fiscal incidence

- Before taxes and transfers income of unit *h, or* I_h
- Taxes T_i
  - personal income taxes; contributions to social security
  - consumption and production taxes and subsidies
- Transfers R_i
  - social spending: cash & near-cash transfers; in-kind transfers (education and health)
  - consumption and production (agriculture) subsidies
- "Allocators" of tax *i* and transfer *j* to unit *h*, or S_{ih}, S_{jh} (the share of tax *i* borne or transfer *j received* by unit *h*) => Incidence
- Post-taxes and transfers income of unit h (Y_h)

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- Post-taxes and transfers income of unit h (Y_h) is:

Taxes & Transfers

Post-fisc Income

$$Y_h = I_h - \sum_i T_i S_{ih} + \sum_j R_j S_{jh}$$

Pre-fisc Income

Incidence of Taxes & Transfers

Construction of Income Concepts

MARKET INCOME

PLUS DIRECT TRANSFERS

GROSS INCOME

MINUS DIRECT TAXES

MINUS DIRECT TAXES

NET MARKET INCOME

PLUS DIRECT TRANSFERS

DISPOSABLE INCOME

MINUS NET INDIRECT TAXES

POST-FISCAL INCOME

PLUS MONETIZED VALUE OF PUBLIC SERVICES: EDUCATION & HEALTH

FINAL INCOME

Methods to Construct Income Concepts

- *Direct Identification Method*
- *Imputation Method*
  - *Direct (Education and Health)*
  - *Simulation (Direct and Indirect Taxes)*
- *Inference Method*
- *Alternate Survey*
- *Secondary Sources Method*

Reconciling the Two Economies: Survey Data vs. Administrative Accts.

- What to do when totals in Survey do not match administrative accounts?

- Should imputed values be scaled-down or the rest of the concepts scaled up?

Contributory Pensions

- Are they a government transfer or deferred consumption and hence part of market income?
  - No consensus
  - Results, especially for poverty, are extremely sensitive

=> Do it both ways

Importance of Comprehensive Analysis

- Obvious reason: to capture the full effect of the net fiscal system

- More subtle reason: partial assessments of progressivity and regressivity can be misleading

  => a regressive tax can be equalizing and re-inforce the equalizing impact of transfers

Lambert's Conundrum

	1	2	3	4	Total
Original income x	10	20	30	40	100
Tax Liability t(x)	6	9	12	15	42
Benefit level b(x)	21	14	7	0	42
Post-benefit income	31	34	37	40	142
Final income	25	25	25	25	100

Source: Lambert, 2001, Table 11.1, P. 278

Lambert's Conundrum

- The Reynolds-Smolensky (R-S) index for taxes in this example is equal to -0.0517, highlighting their regressivity.
- Yet, the R-S for the net fiscal system is 0.25, higher than the R-S for benefits equal to 0.1972.
- If taxes are regressive vis-à-vis the original income but progressive with respect to the less unequally distributed post-transfers (and subsidies) income,

  => regressive taxes exert an equalizing effect over an above the effect of progressive transfers.
- Two renowned studies found this type of result in the US and the UK.

Results

Redistribution and Inequality Reduction

Redistribution in the rich and developing countries

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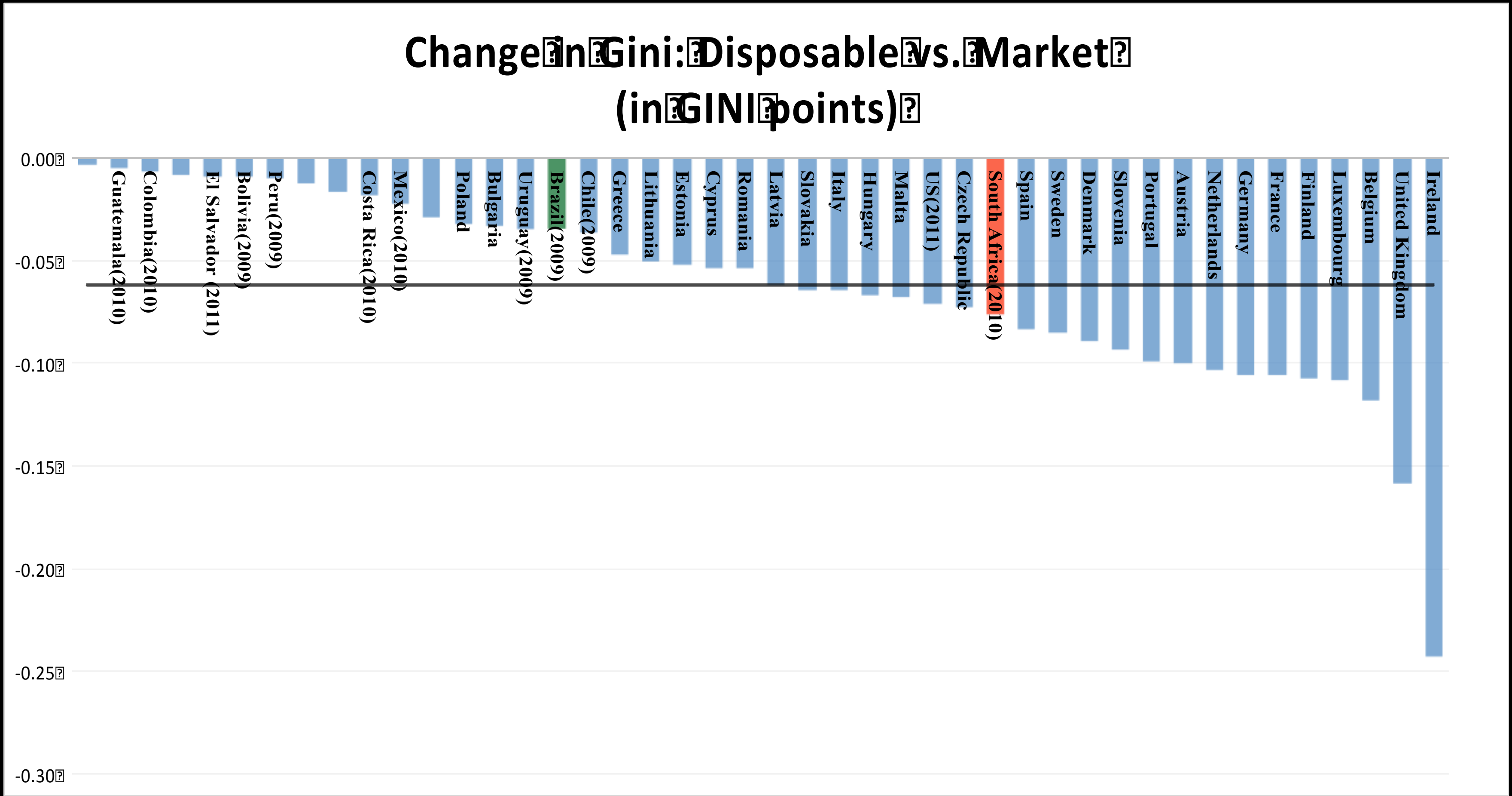
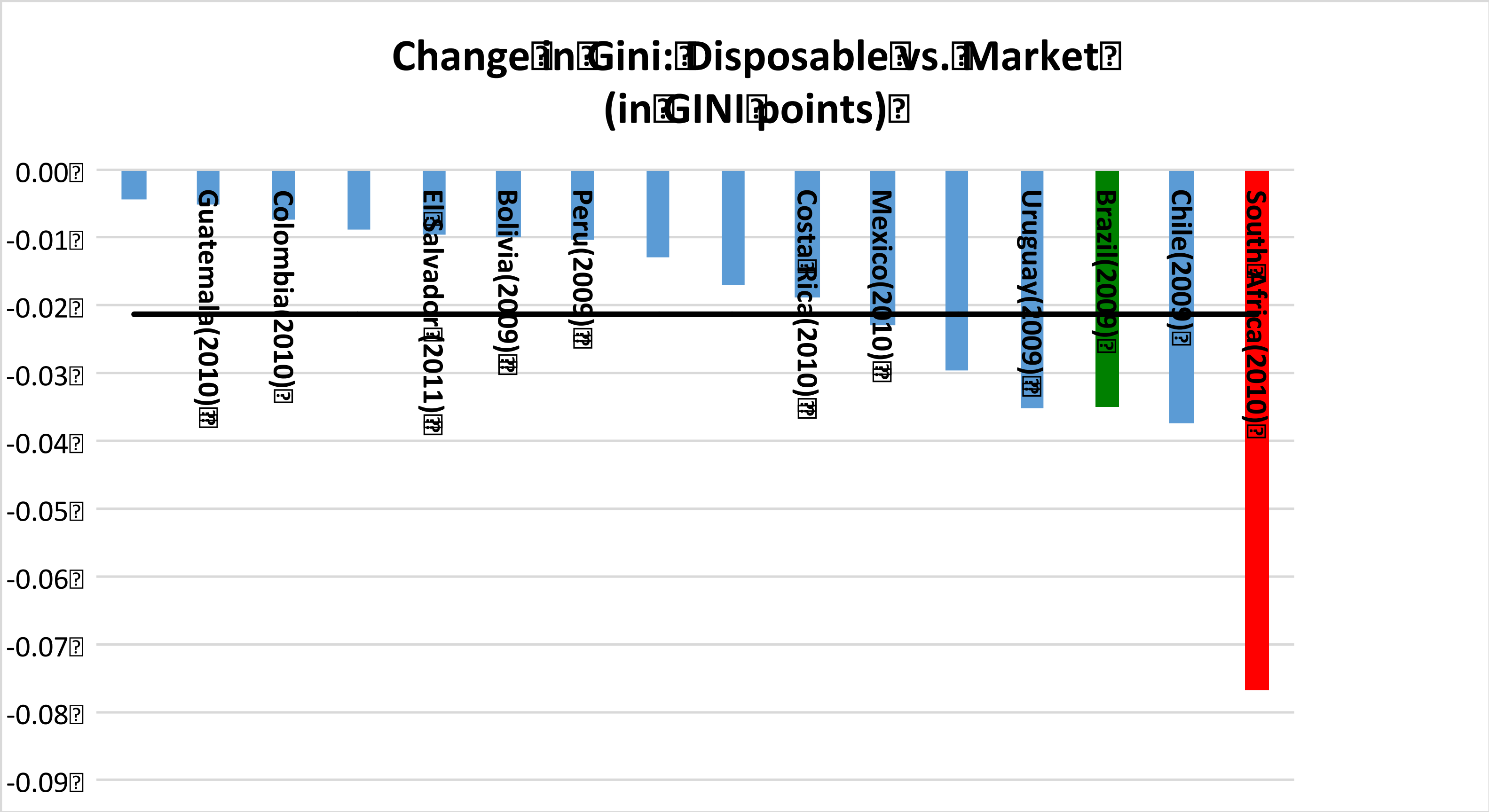
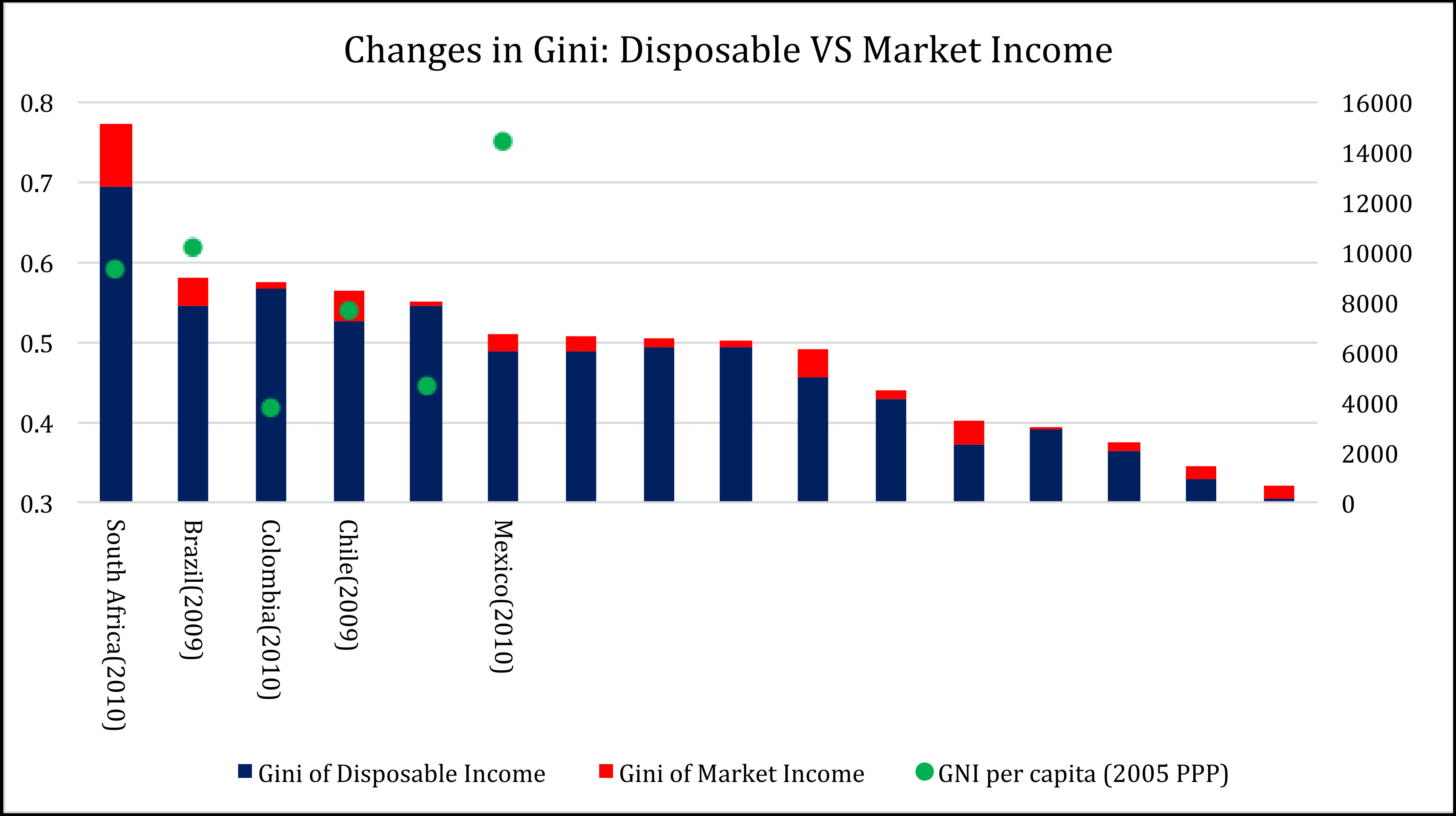


Sources: EUROMOD for EU,Higgins et al. (2014) for US and for CEQ countries see Lustig (2014) and references at the end.
Note: in these calculations contributory pensions are part of market income and NOT treated as a government transfer.

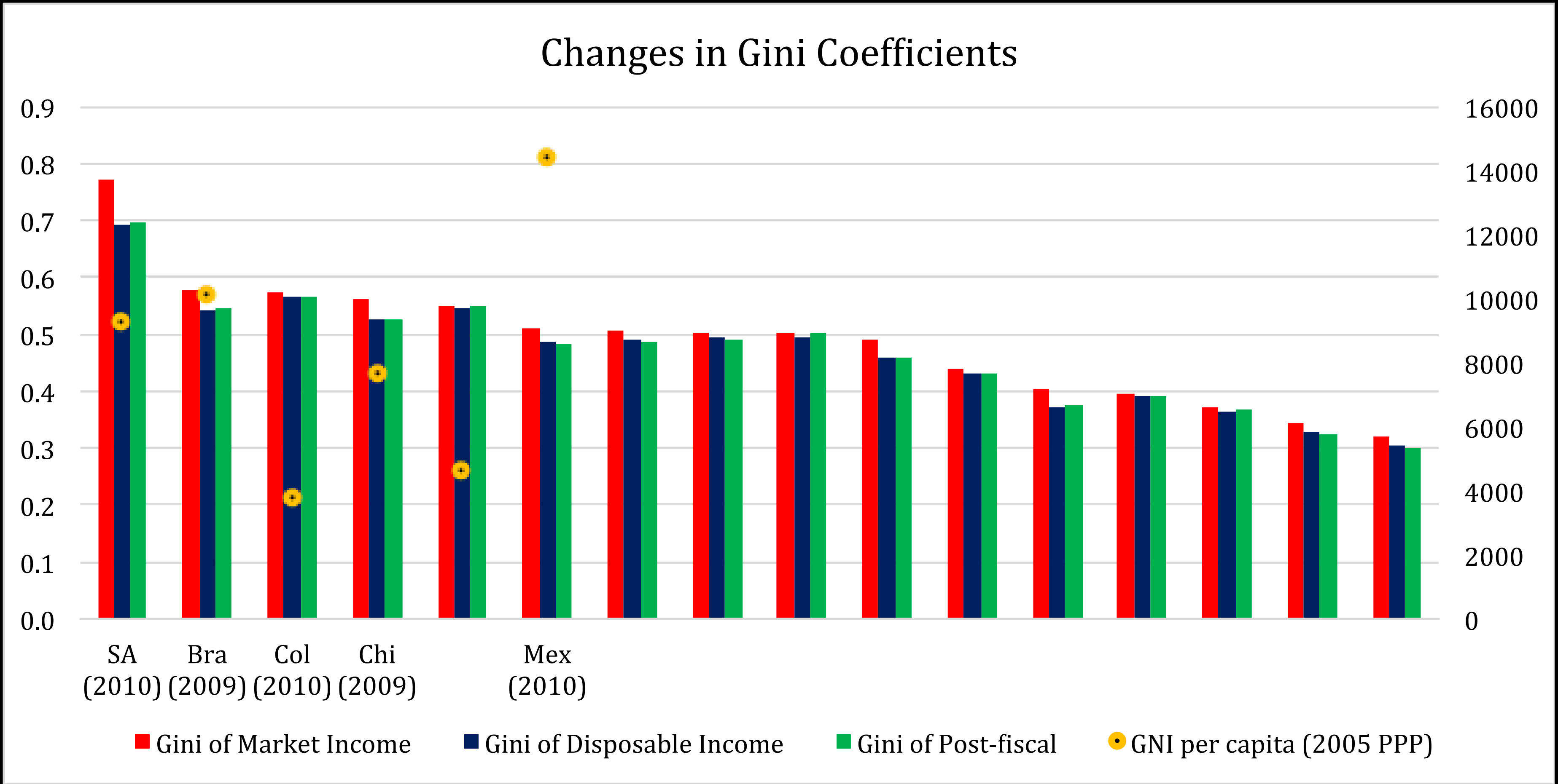
Redistribution in Middle and Low Income Countries: CEQ 16



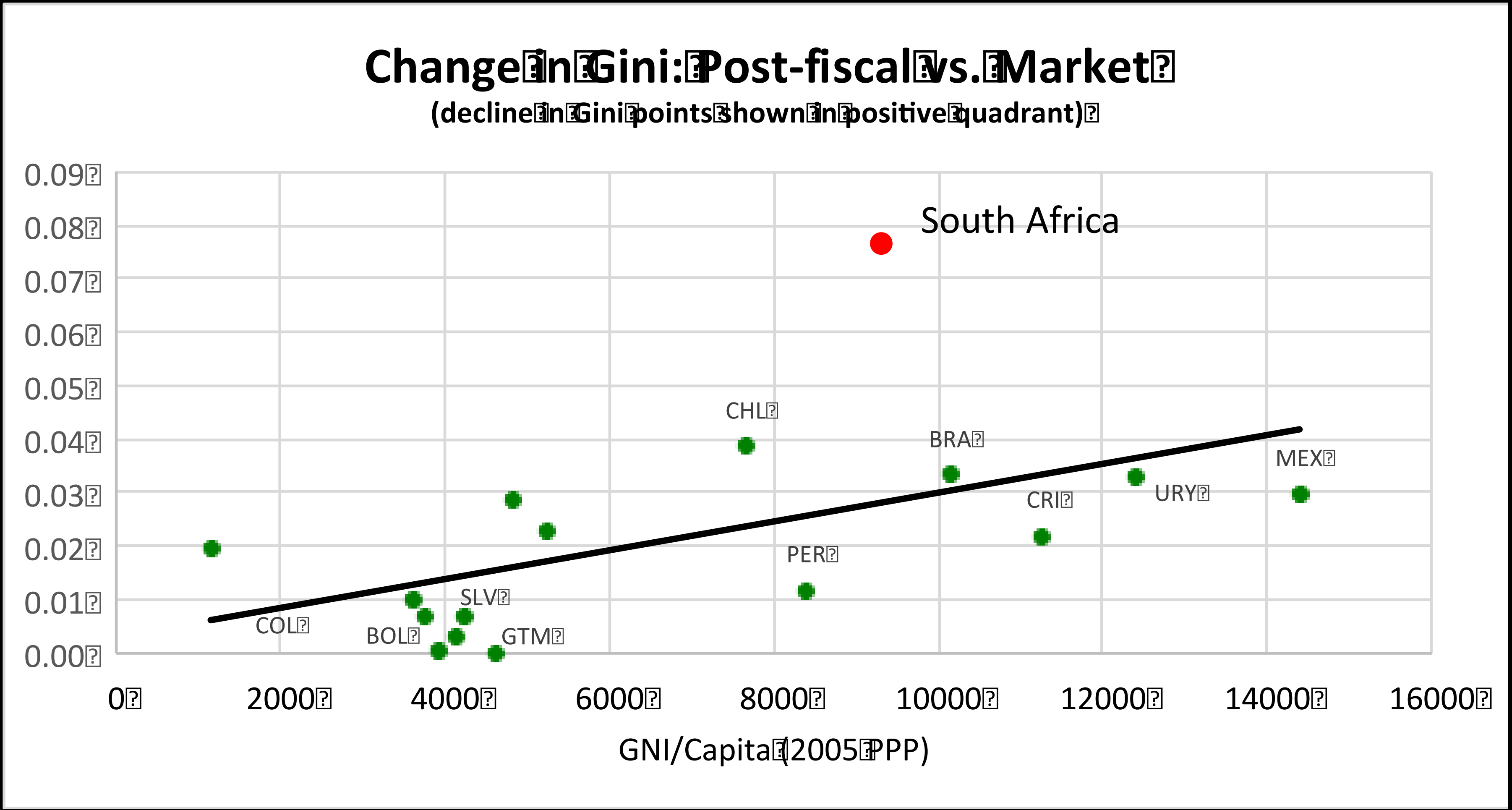
The impact of direct taxes and transfers on inequality (Gini coefficient): CEQ 16



The impact of net indirect taxes on inequality (Gini coefficient): CEQ 16

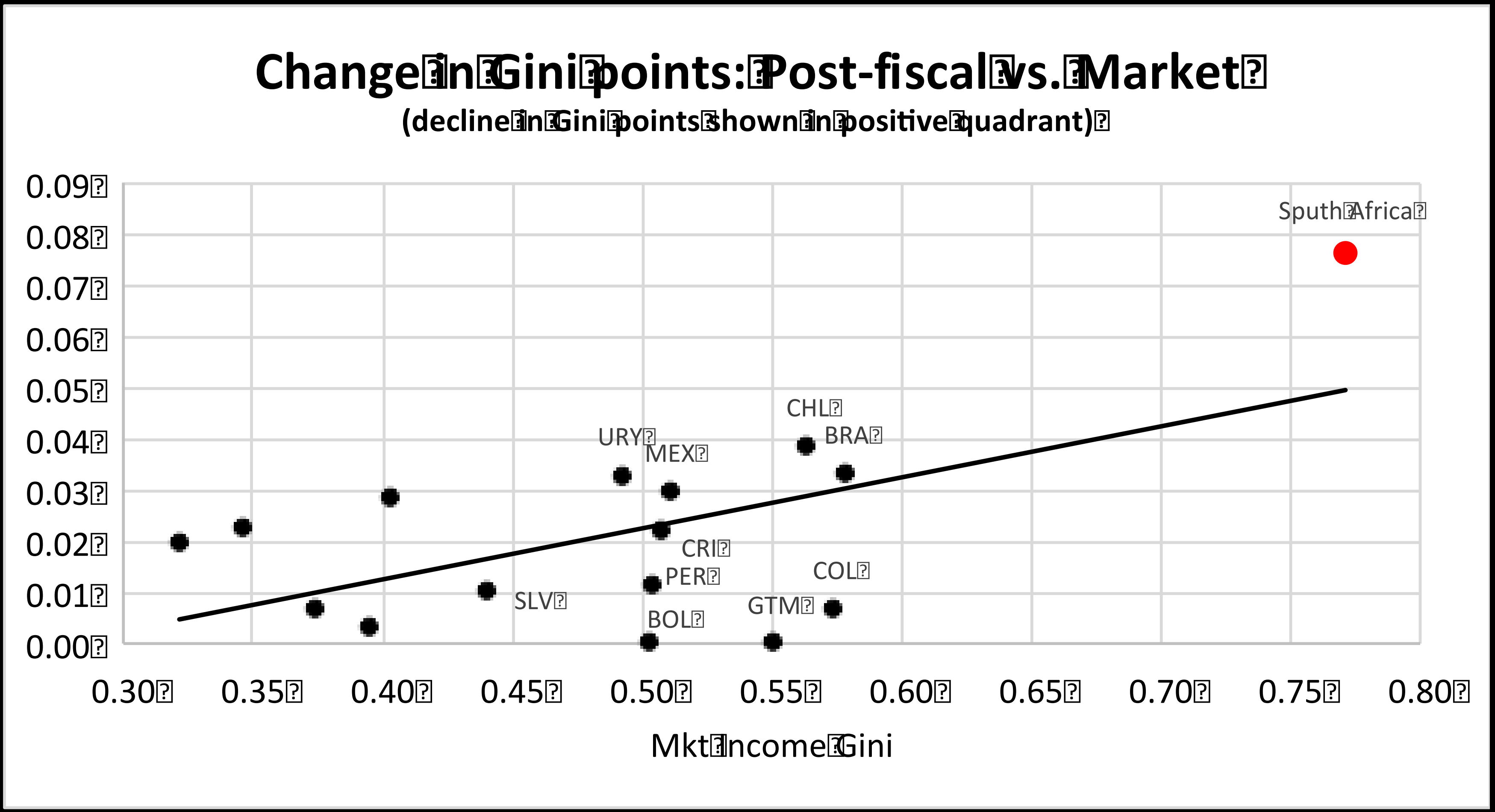


Lindert's (2006) historical result is also found in cross section: Higher GDP/capita, more redistribution



However, no Robin Hood Paradox

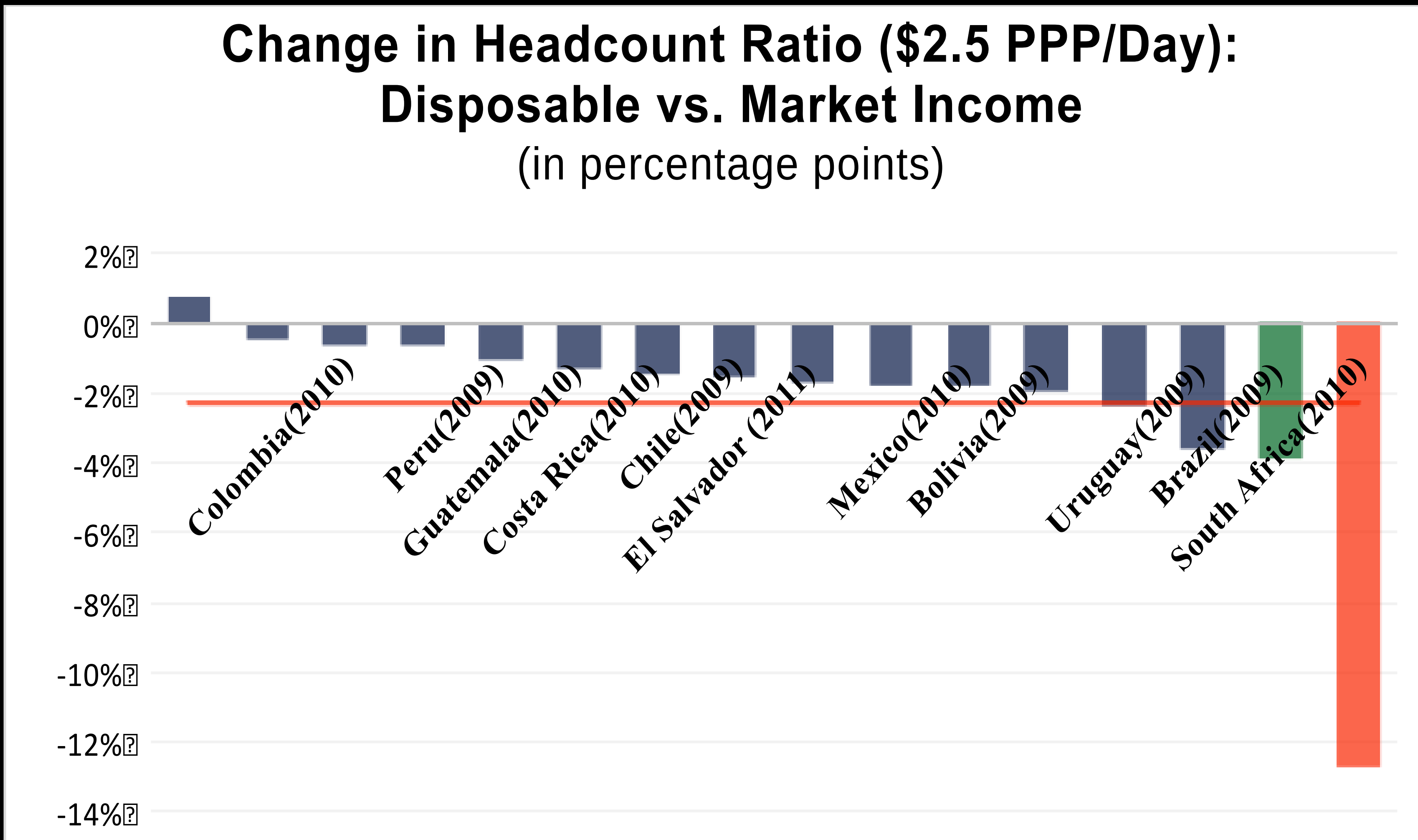
And results do not depend on South Africa



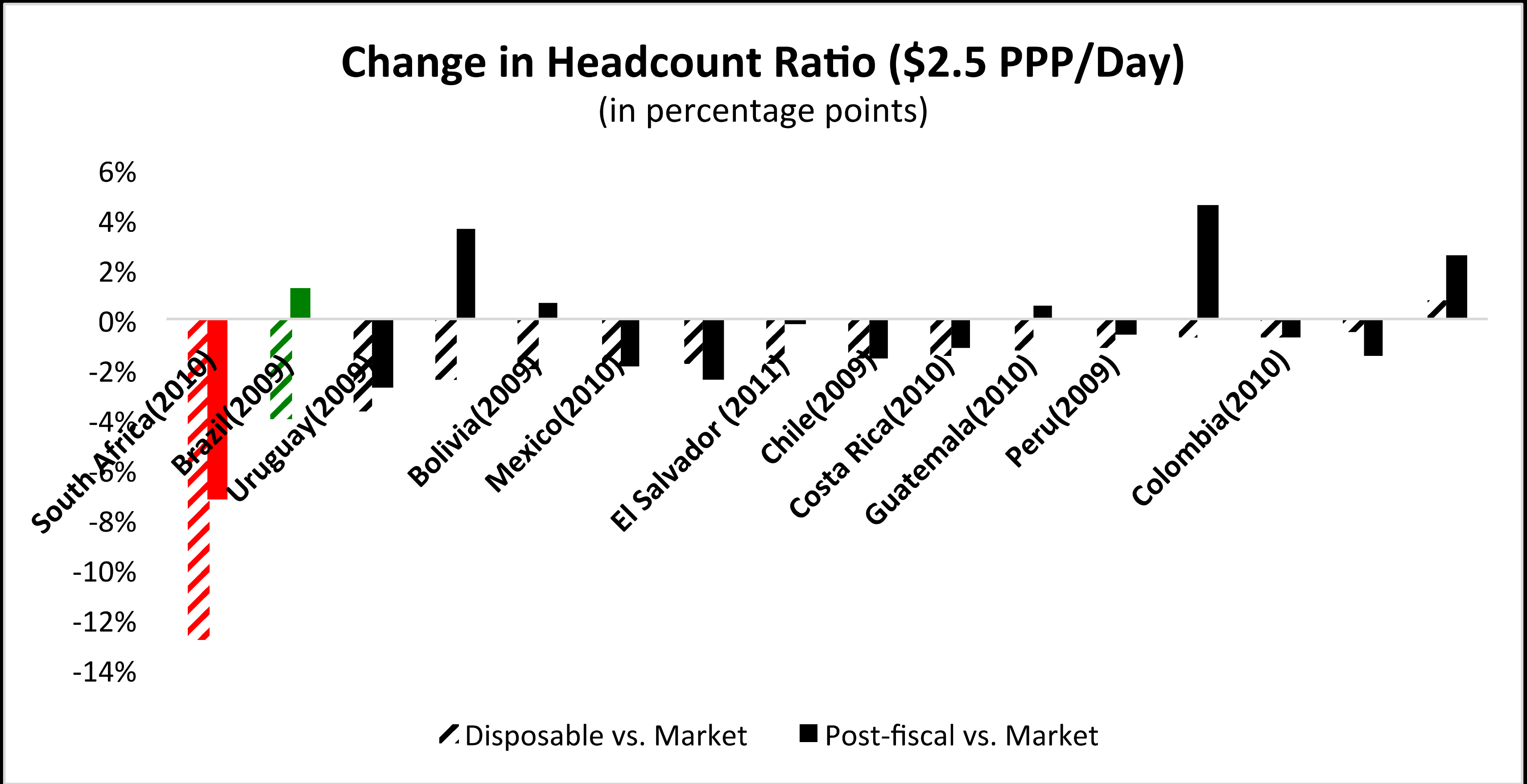
Results

Redistribution and Poverty Reduction

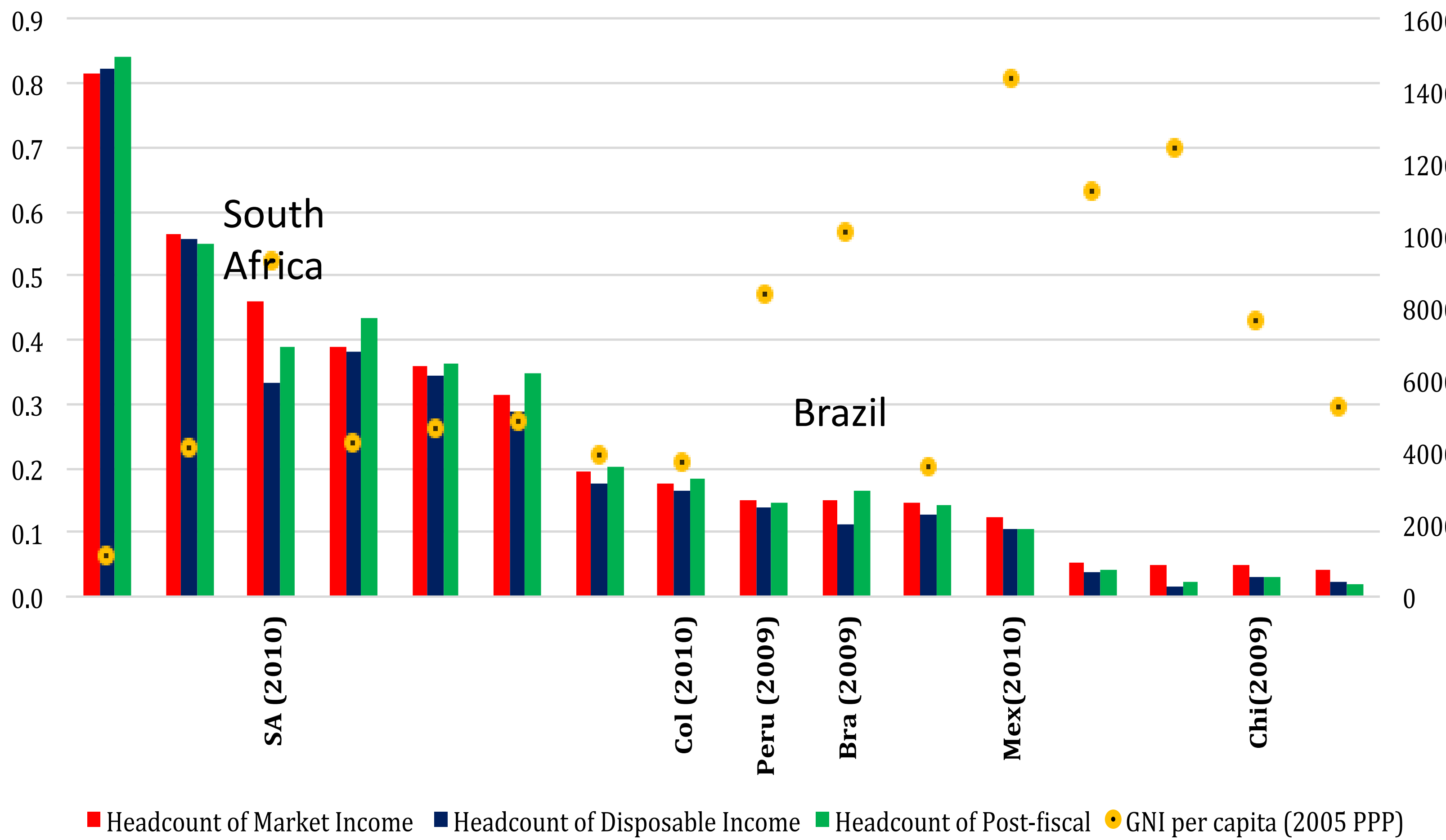
Direct Transfers (net of direct taxes) reduce poverty (except in Ethiopia): CEQ 16



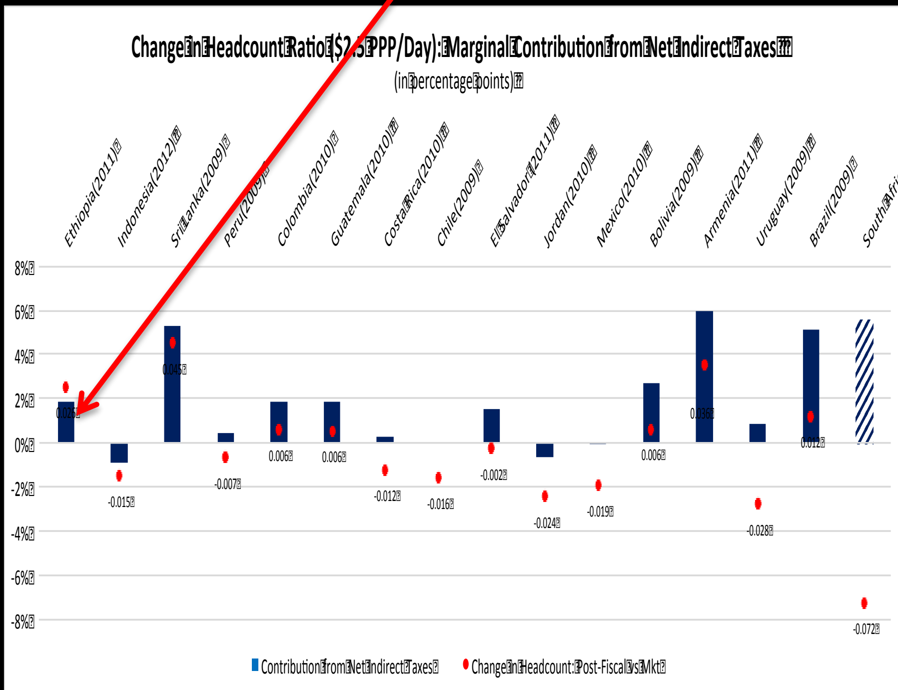
Indirect Taxes increase poverty over and above market income poverty in six out of the CEQ 16 countries

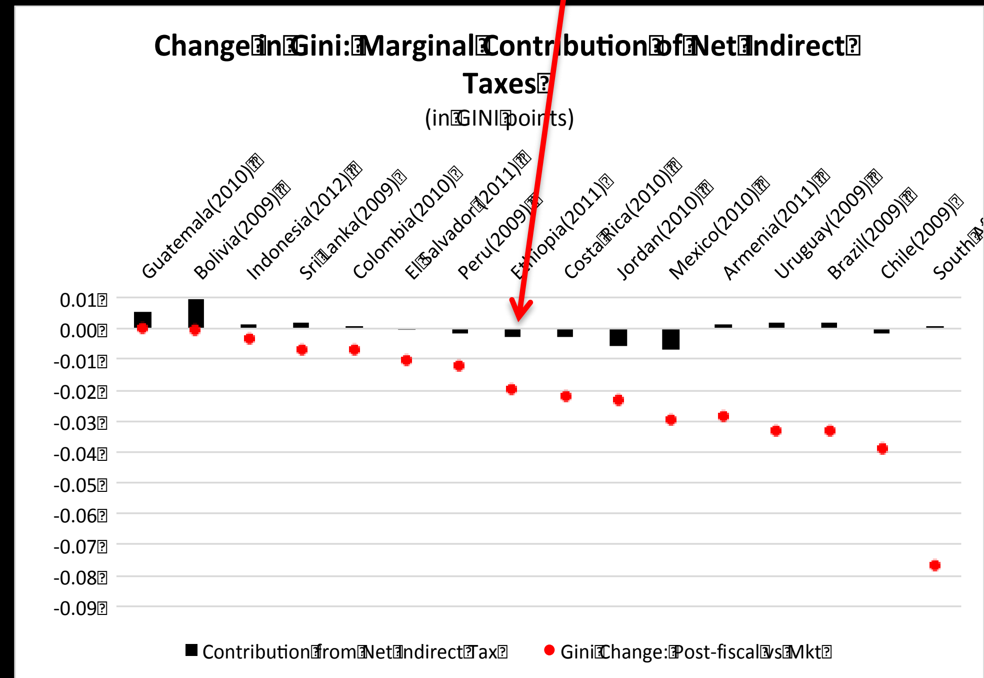


Changes in Headcount Ratio: Post-fiscal vs. Market Income
(Poverty Line: US$2.50ppp/day)



Note that Net Indirect Taxes can be equalizing and yet poverty increasing: Ethiopia





Thank you!