



## Inequality, Poverty, Markets and the State: the Case of Brazil

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A World Without Poverty
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#### OUTLINE

- The facts
- Inequality, poverty reduction and the middle class
- Why has inequality declined?
- Zooming in: Brazil
  - Labor Markets
  - Transfers
- Unintended consequences of fiscal policy in Brazil (Commitment to Equity Project, CEQ)

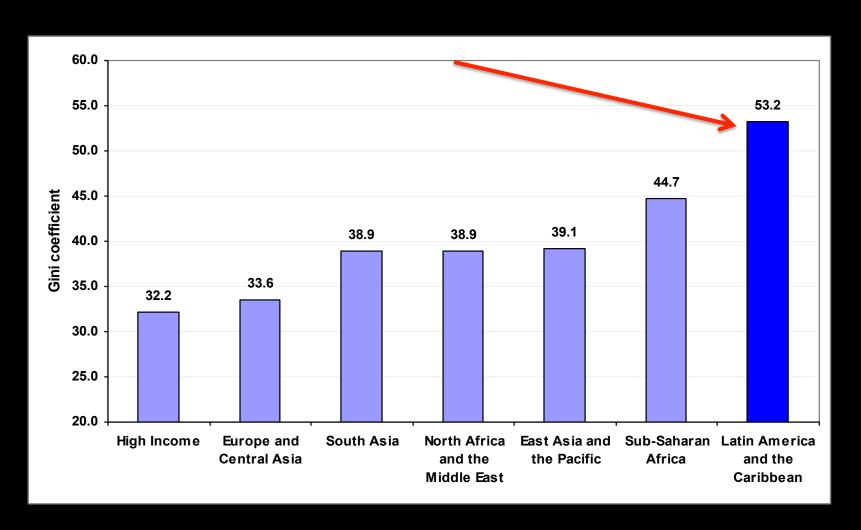
### THE FACTS

## Inequality in Latin America is high... ...but has been declining since around 2000

- Decline is pervasive and significant
- Larger than the rise in inequality in 1990s
- Important contribution to the decline in poverty
- Contributed to the rise of the middle-class

### LATAM IS THE MOST UNEQUAL REGION IN THE WORLD

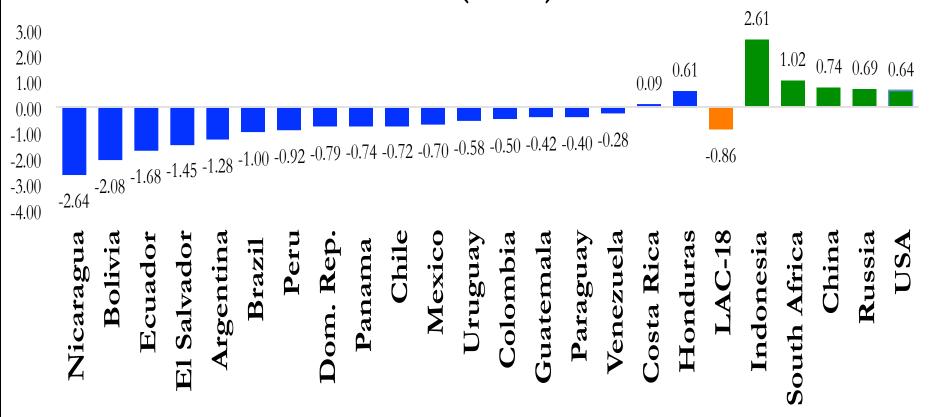
Gini Coefficient by Region (in %), 2004

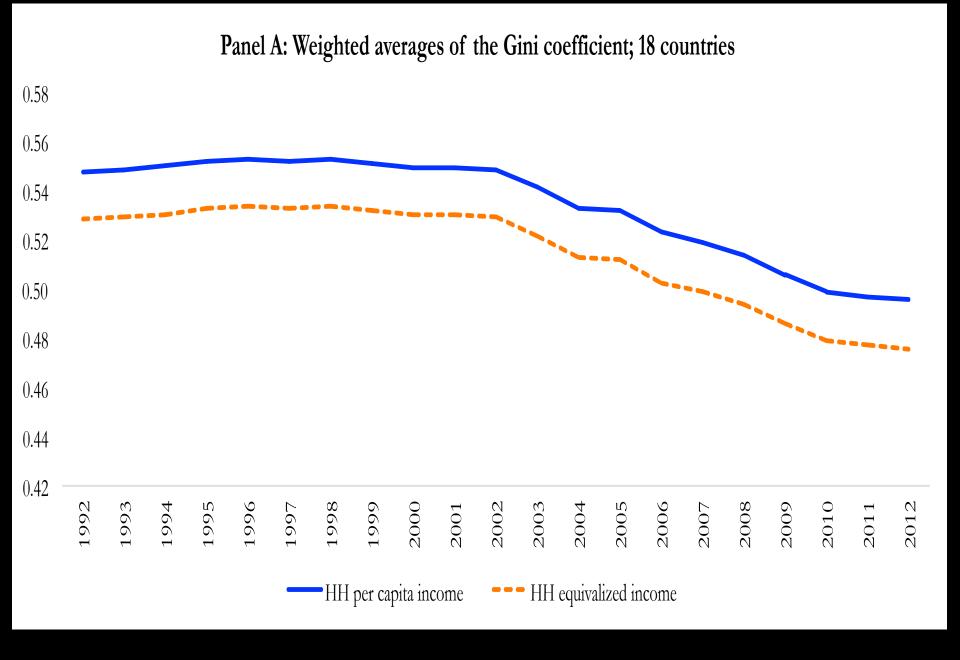


#### Declining Inequality in 2000's

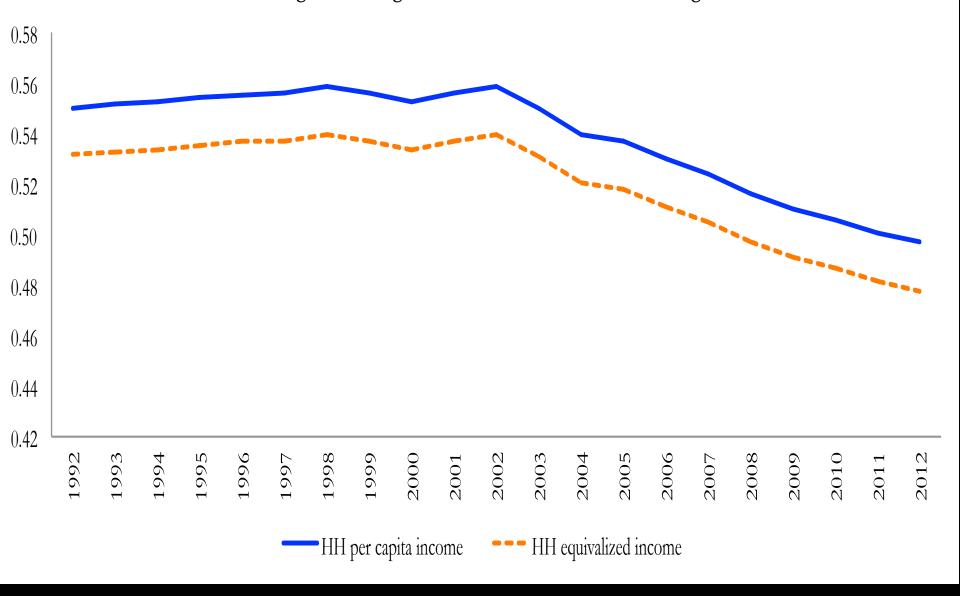
- The Gini coefficient for household per capita income fell from a weighted (unweighted) average of 0.550 (0.532) in the early 2000s to 0.496 (0.483) circa 2012.
- On average, the decline equaled .86%/year
- The decline occurred in 16 of the 18 countries.
- The rate of decline ranged from an annual average of -2.64 percent in Nicaragua to -0.28 percent in Venezuela.

## Average Yearly Change in Gini: 2000 (circa) - 2012 (circa)



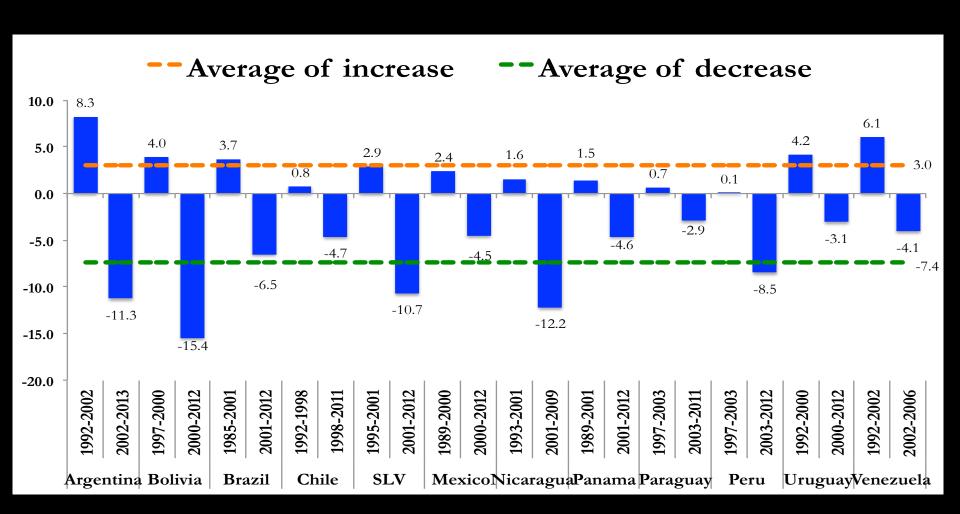


Panel B: Weighted averages of the Gini coefficient, excluding Mexico



### The decline of income inequality in the 2000s has been higher that the rise in the 1990s

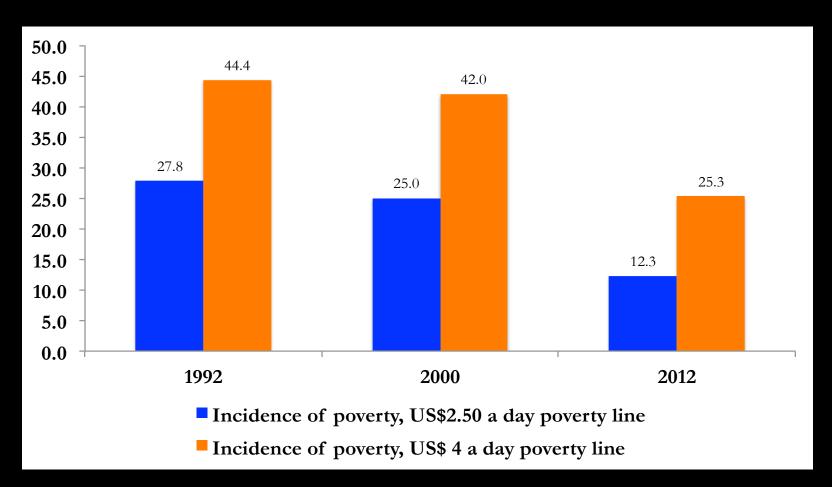
(Change in Gini points in %)



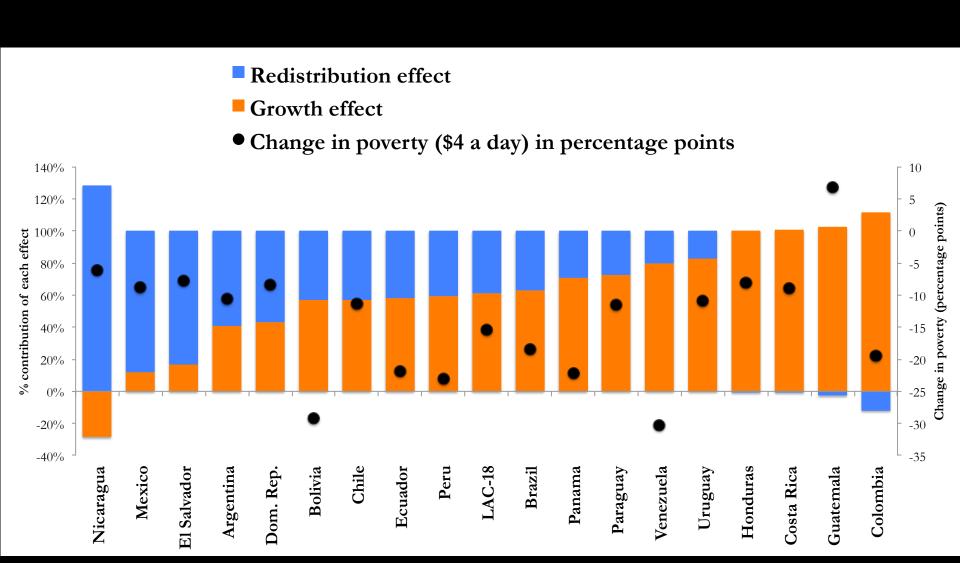
Lustig et al. (2014) based on SEDLAC

# Inequality, Poverty and the Middle-Class

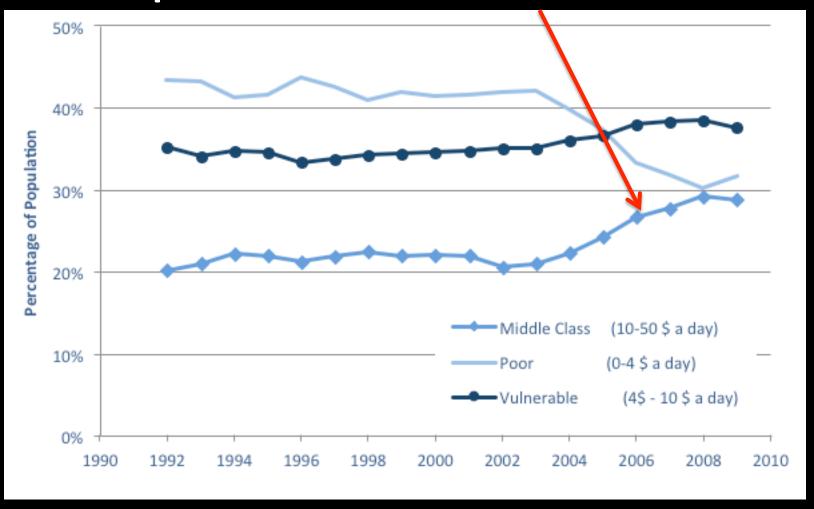
## Decline in Poverty 1992-2012 (Ave. Headcount Ratio in %)



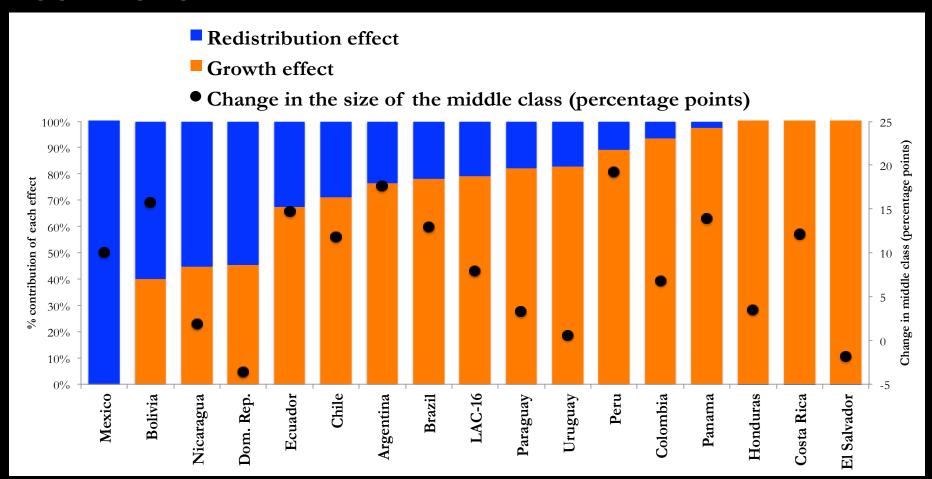
### On average, 39 percent of the reduction in poverty was due to the decline in inequality c. 2001-2010



### Declining inequality has contributed to the expansion of the "middle-class"



# On average, 21 percent of the expansion of the middle-class was due to the decline in inequality c. 2001-2010



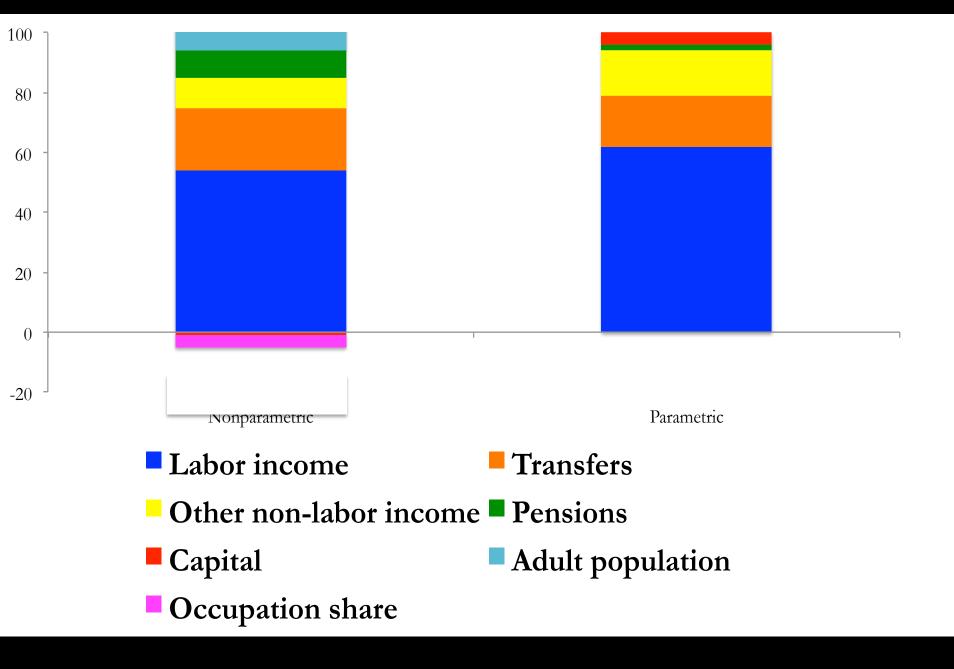
### WHY?

## Inequality in Latin America is high... ...but has been declining since around 2000

- In countries with high growth & low growth
- In countries with left and nonleft governments
- In commodity exporters and commodity importers
- In high and low (for Latam standards) inequality countries

## Determinants of the decline in inequality: candidates

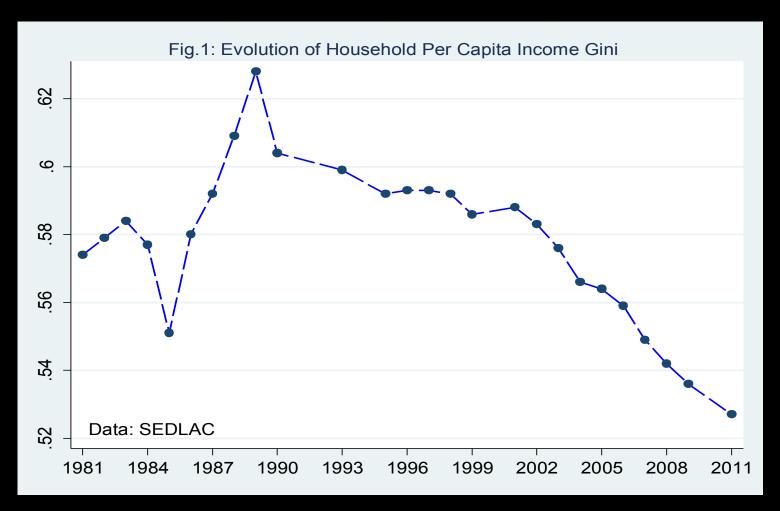
- Declining inequality of hourly labor income
- Larger and more progressive transfers
- Lower dependency ratios
- Higher participation rates of adults



### Zooming in

# Brazil: Labor Market

#### **Brazil: Decline in Inequality (Gini)**



Wang, Yang. 2013. "Decomposing the Changes in Male Wage Distribution in Brazil." Tulane University, Ph.D. field paper

Figure 2: Household incomes and labour earnings in Brazil, 1995-2012: inequality.

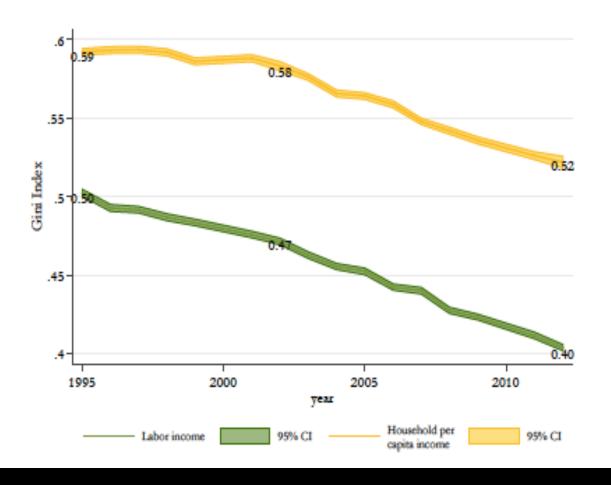
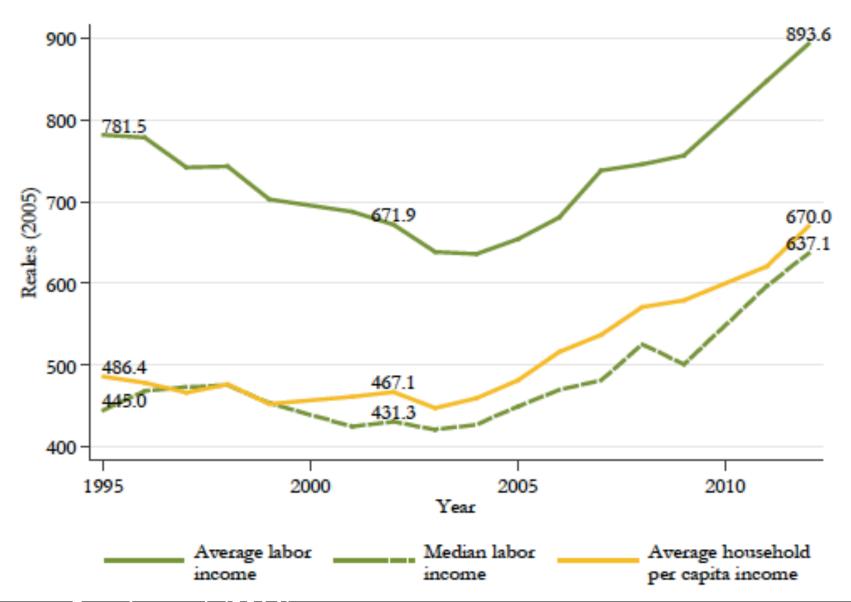
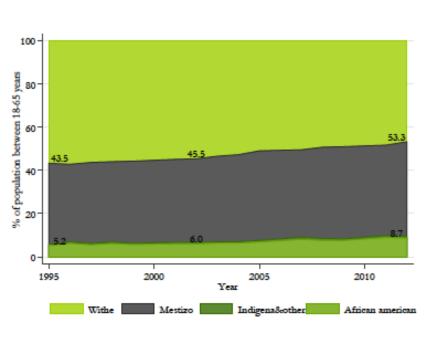


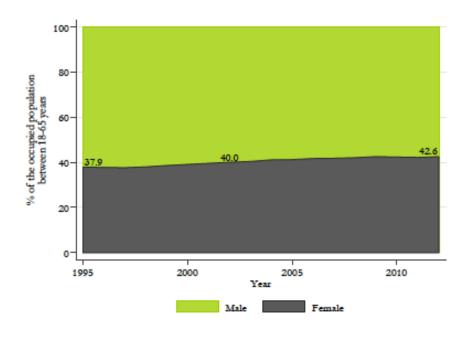
Figure 1: Household incomes and labour earnings in Brazil, 1995-2012: levels.



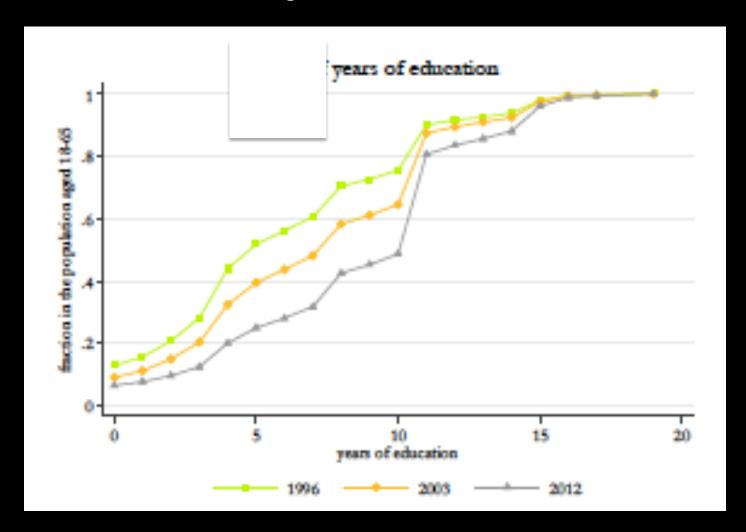
#### **Brazil: Race and Gender**

Figure 8: Demographic changes in the working-age population, 1995-2012.

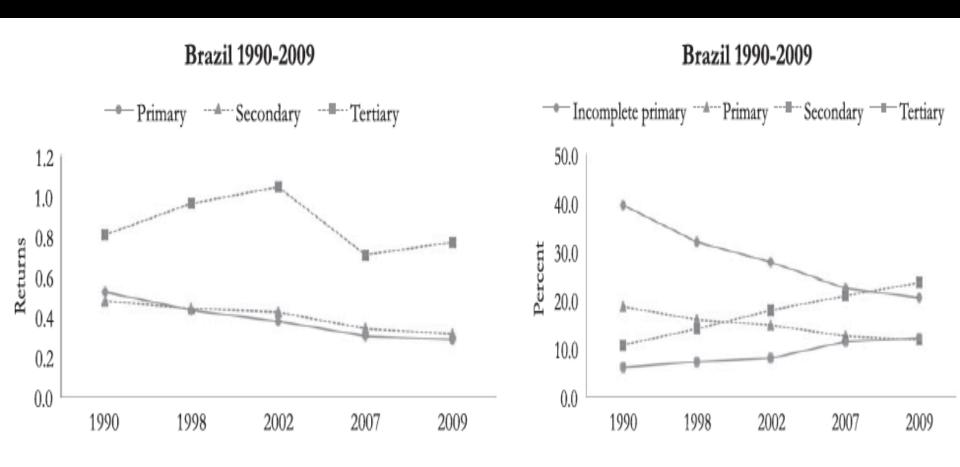




#### **Brazil: Expansion of Education**



### Brazil: Relative Supply and Relative Returns

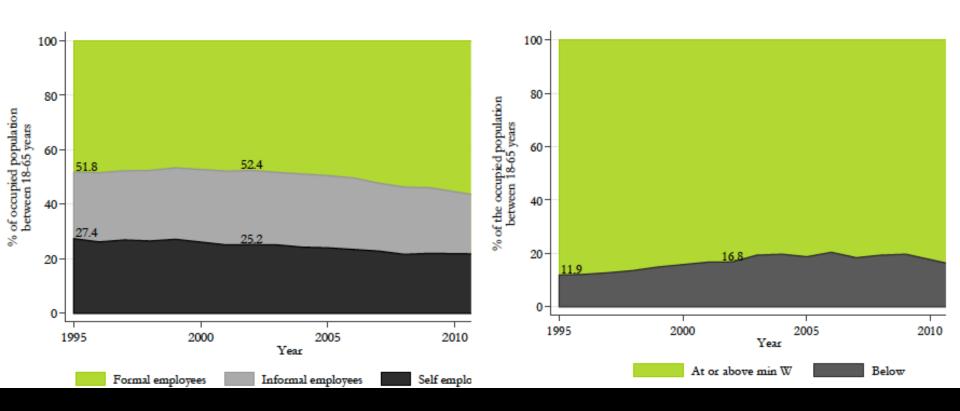


## Brazil: Decline in real wages for workers with tertiary

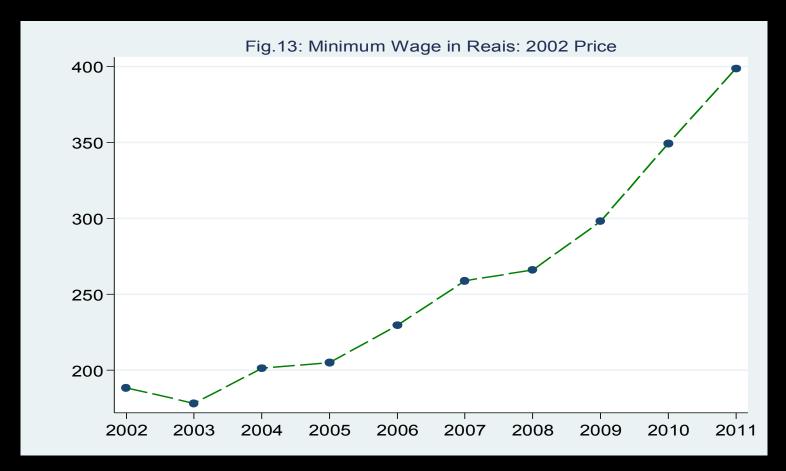


## Brazil: Formalization and Workers Earning Above the Minimum Wage

Figure 7: Formalization and the minimum wage, 1995-2012.

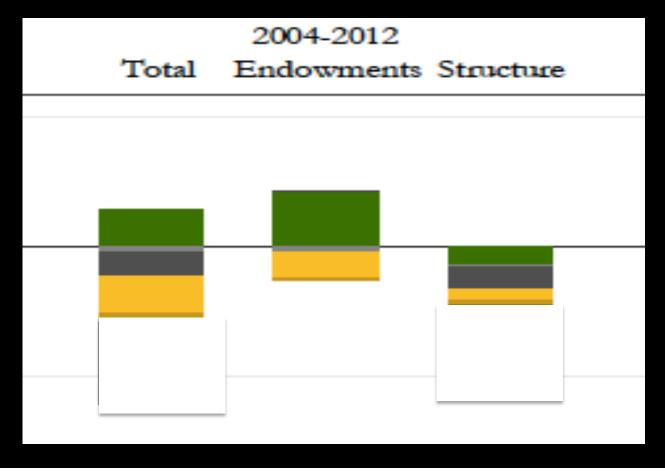


#### Brazil: Rising minimum wage



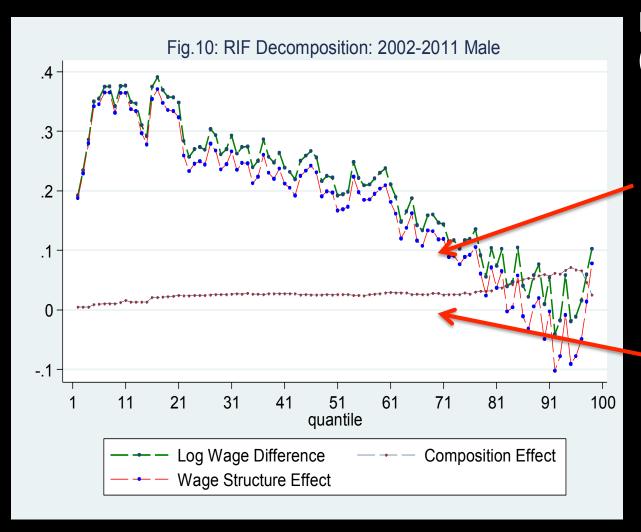
Wang, Yang. 2013. "Decomposing the Changes in Male Wage Distribution in Brazil." Tulane University, Ph.D. field paper

### Brazil: Decomposing: human capital, gender/race, urban/rural, minimum wage, informality



■ Human Capital ■ Gender&Race ■ Urban/Rural&Regions ■ Min wage ■ Informality

Source: Ferreira et al. (2014)



Brazil (2002-2011):

- RelativeWages=> Equalizing
- CompositionEducation &ExperienceSlightlyUnequalizing

#### **Zooming in: Brazil**

#### Relative Wages effect:

- Real average wages increased during most of the period
- Real average wages of less educated, less experienced, rural, and poorer workers increased
- Real average wages of the college-educated declined over the period

#### **Zooming in: Brazil**

#### Relative Wages effect:

- Expansion of education:
  - Increase in relative supply of skilled workers => decline in the skill premium
- Agricultural exports boom
  - Increase in relative demand of low-skilled workers and workers living outside big metropolis => increase in relative wages of lowskilled and poorer workers
- Rising minimum wages and formality
  - => increase in relative wages of low-skilled and poorer workers
- Declining <u>absolute</u> real wages for workers with tertiary
  - Degraded tertiary?
  - Mismatch?
  - Obsolescence of Skills of older workers?

### Zooming in

### **Brazil: Transfers**

## Brazil: Role of Transfers (Barros et al., 2010)

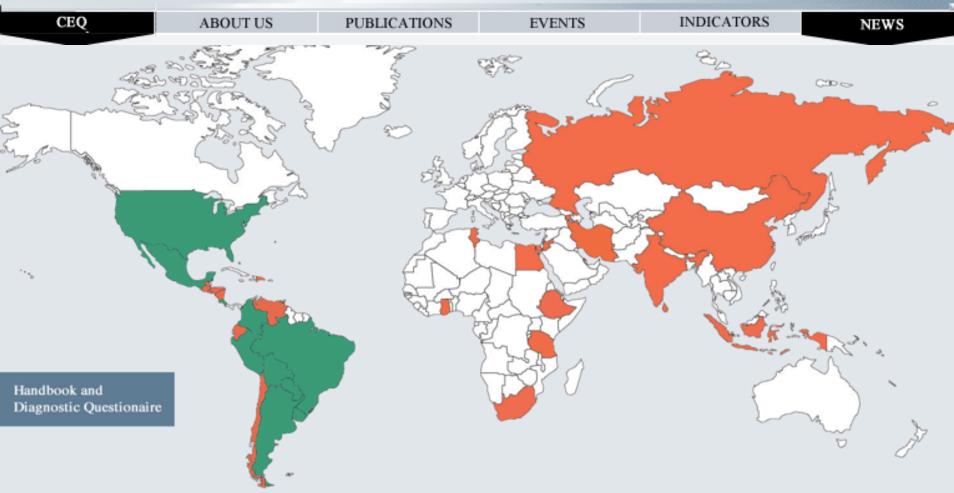
- Changes in the size, coverage, and distribution of public transfers account for 49 percent of the total decline in inequality
- Public transfers represent over 80 percent of nonlabor income and 29 percent of household income.













Construction of Income Concepts

MINUS DIRECT TAXES

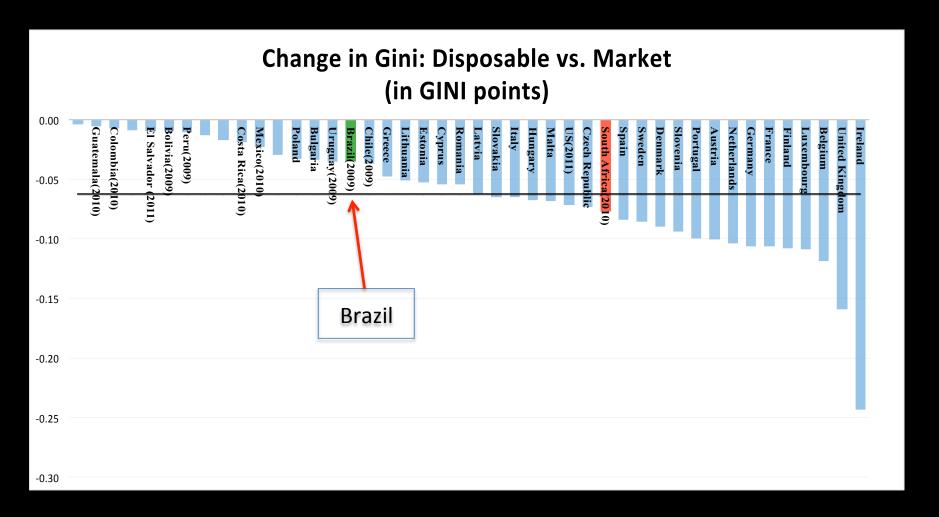
NET MARKET INCOME

PLUS DIRECT TRANSFERS

#### **DISPOSABLE INCOME**

### Redistribution in the rich and developing countries

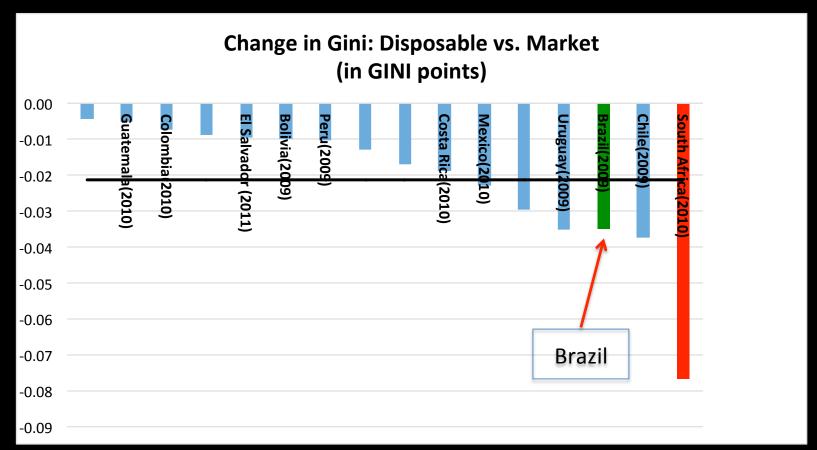




Sources: Lustig, Nora. 2014. "Fiscal Policy, Inequality and the Poor in the Developing World. Round 1." *CEQ Working Paper No. 23*, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, forthcoming. EUROMOD for EU, Higgins et al. (2014) for US. See CEQ teams 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



Sources: Lustig, Nora. 2014. "Fiscal Policy, Inequality and the Poor in the Developing World. Round 1." CEQ Working Paper No. 23, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, forthcoming. See CEQ teams at the end. Brazil: Higgins, Sean and Claudiney Pereira. 2014. "The Effects of Brazil's Taxation and Social Spending on the Distribution of Household Income." In Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review, May, Volume 42, Issue 3.

Note: in these calculations contributory pensions are part of market income and NOT treated as a government transfer.



Construction of Income Concepts

MINUS DIRECT TAXES

NET MARKET INCOME

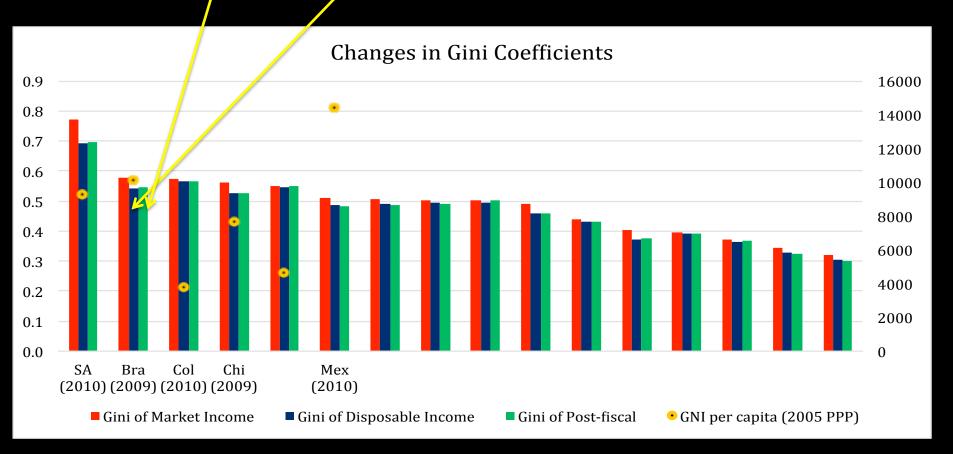
PLUS DIRECT TRANSFERS

**DISPOSABLE INCOME** 

MINUS NET INDIRECT TAXES

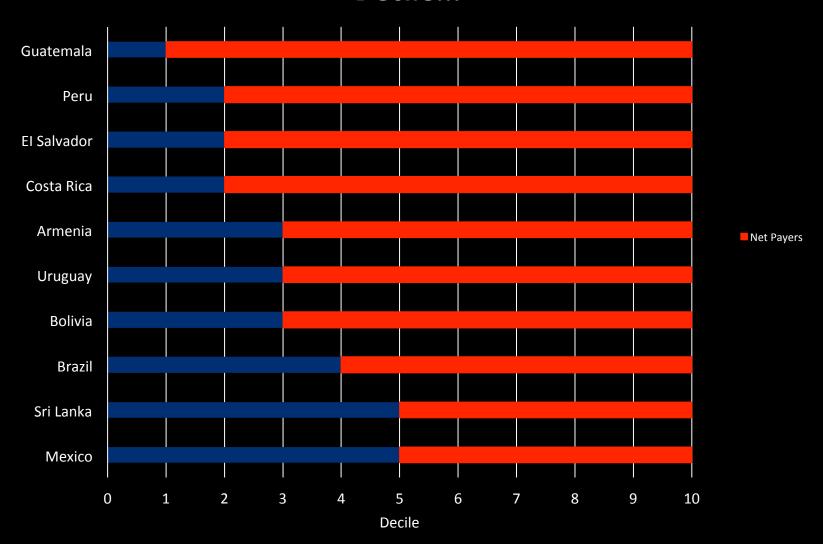
**POST-FISCAL INCOME** 

# The impact of net cash transfers and net indirect taxes on inequality (Gini coefficient): CEQ 16

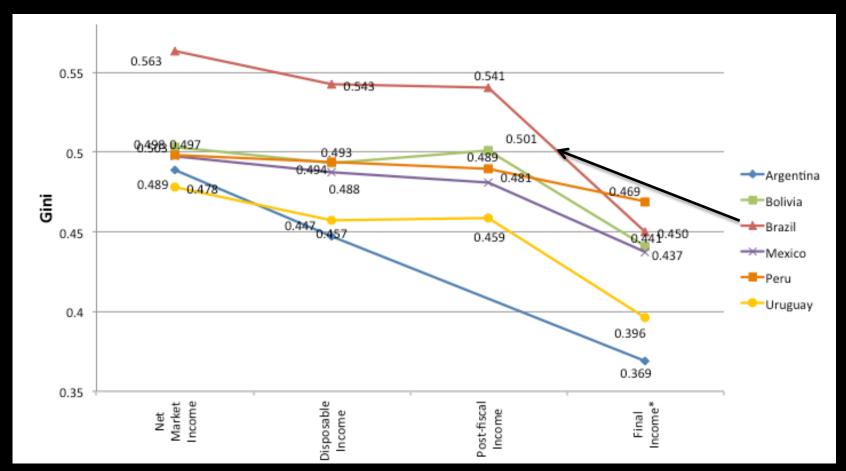




### Net Payers to the Fiscal System Start at Decile...

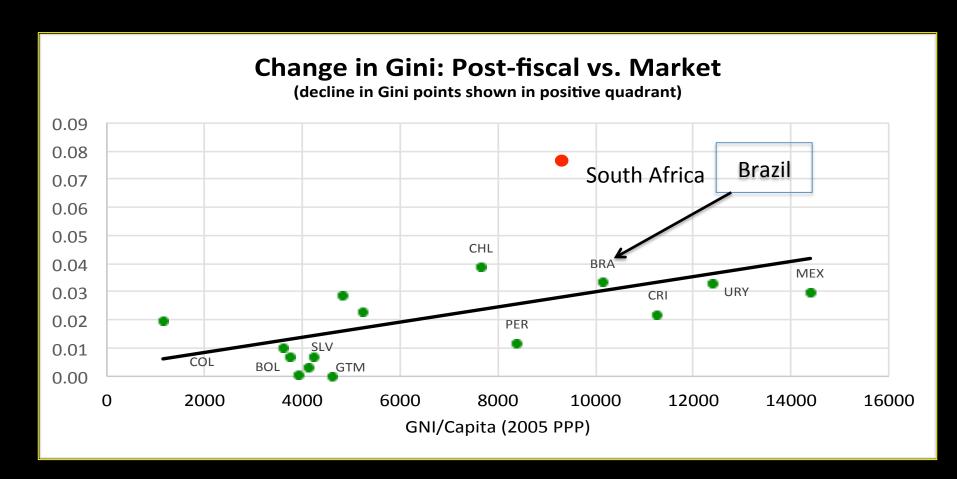


# Adding the Effect of Monetized Value of Public Spending on Education and Health



Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review, May, Volume 42, Issue 3.

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

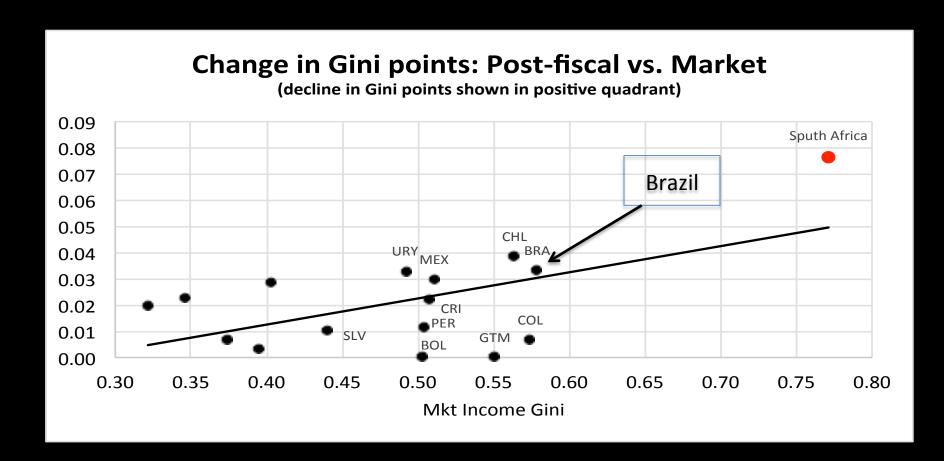


Sources: Lustig, Nora. 2014. "Fiscal Policy, Inequality and the Poor in the Developing World. Round 1." *CEQ Working Paper No. 23*, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, forthcoming. See CEQ teams at the end. Brazil: Higgins and Pereira (2014).

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### However, no Robin Hood Paradox

#### And results do not depend on South Africa



### Brazil

Unintended consequences of fiscal policy: consumption taxes increase poverty



Construction of Income Concepts

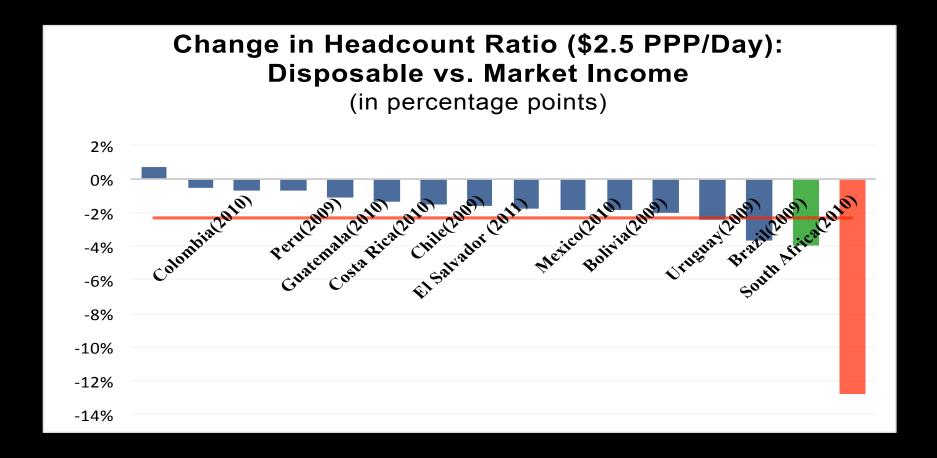
MINUS DIRECT TAXES

NET MARKET INCOME

PLUS DIRECT TRANSFERS

#### **DISPOSABLE INCOME**

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





Construction of Income Concepts

MINUS DIRECT TAXES

NET MARKET INCOME

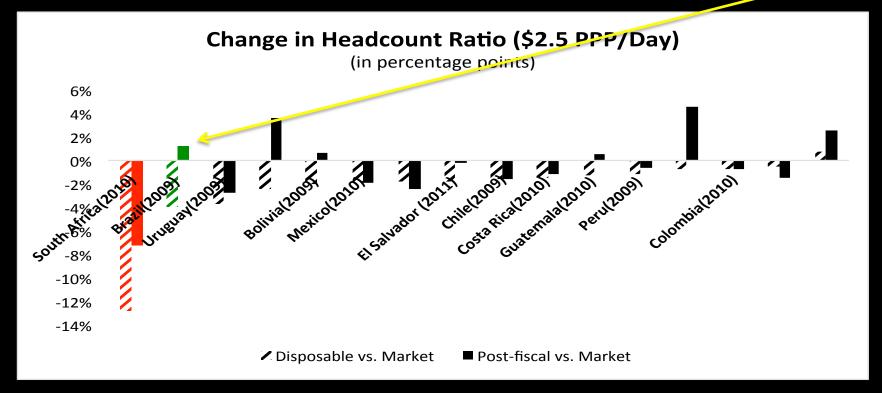
PLUS DIRECT TRANSFERS

**DISPOSABLE INCOME** 

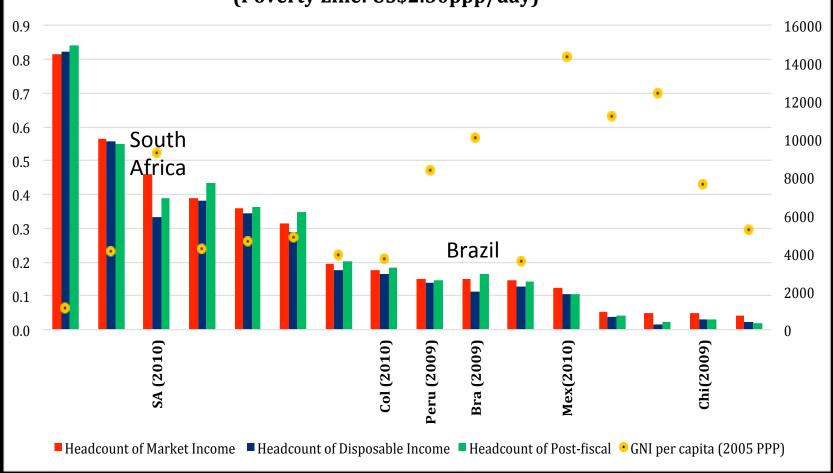
MINUS NET INDIRECT TAXES

**POST-FISCAL INCOME** 

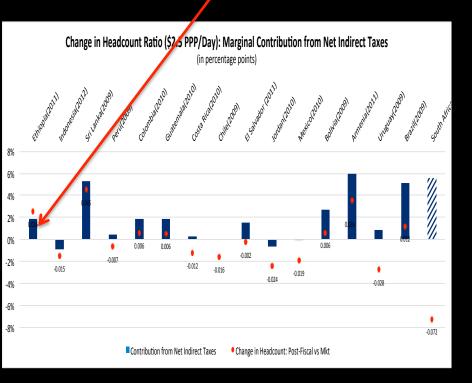
# Indirect Taxes increase poverty over and above market income poverty in six out of the CEQ 16 countries, including Brazil

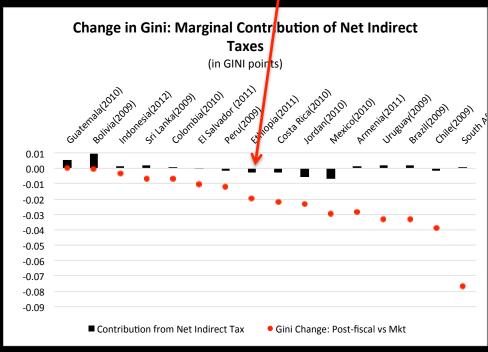






## Note that Net Indirect Taxes can be equalizing and yet poverty increasing: Ethiopia





#### References

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- Bourguignon, F., F. Ferreira and N. Lustig (2005) *The Microeconomics of Income Distribution Dynamics in East Asia and Latin America*, Oxford University Press, Washington, DC.
- Barros et al. (2010) "Markets, the State and the Dynamics of Inequality in Brazil." In Lopez-Calva, L. F. and N. Lustig. *Declining Inequality in Latin America: A Decade of Progress?*, Brookings Institution Press and UNDP.
- Ferreira, F.H. G., S. Firpo, and J. Messina (2014) "A More Level Playing Field? Explaining the Decline in Earnings Inequality in Brazil, 1995-2012", IRIBA Working Paper: 12, The University of Manchester.
- Higgins, Sean and Claudiney Pereira. 2014. "The Effects of Brazil's Taxation and Social Spending on the Distribution of Household Income." In Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. *The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review*, May, Volume 42, Issue 3.
- Lopez-Calva, L. F. and N. Lustig (2010) Declining Inequality in Latin America: A Decade of Progress?,
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- Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review, May, Volume 42, Issue 3.
- Lustig, N., L. F. Lopez-Calva, E. Ortiz-Juarez (2014) "Deconstructing the Decline in Inequality in Latin America," in Basu, Kaushik and Joseph Stiglitz, eds. *Proceedings of IEA roundtable on Shared Prosperity and Growth*, 2015, Palgrave-Macmillan
- Wang, Yang (2013) "Decomposing the Changes in Male Wage Distribution in Brazil." Tulane University, Ph.D. field paper.

#### **CEQ Teams**

#### COMMITMENT TO EQUITY

#### (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)
- 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
- **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)
- 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

### Thank you!