



Taxation, Transfers, and Redistribution Brazil and the United States

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**Comparing Taxation, Transfers, and
Redistribution
in Brazil and the United States
CEQ Working Paper 16
www.commitmentoequity.org**

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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 Lustig**, 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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Motivation

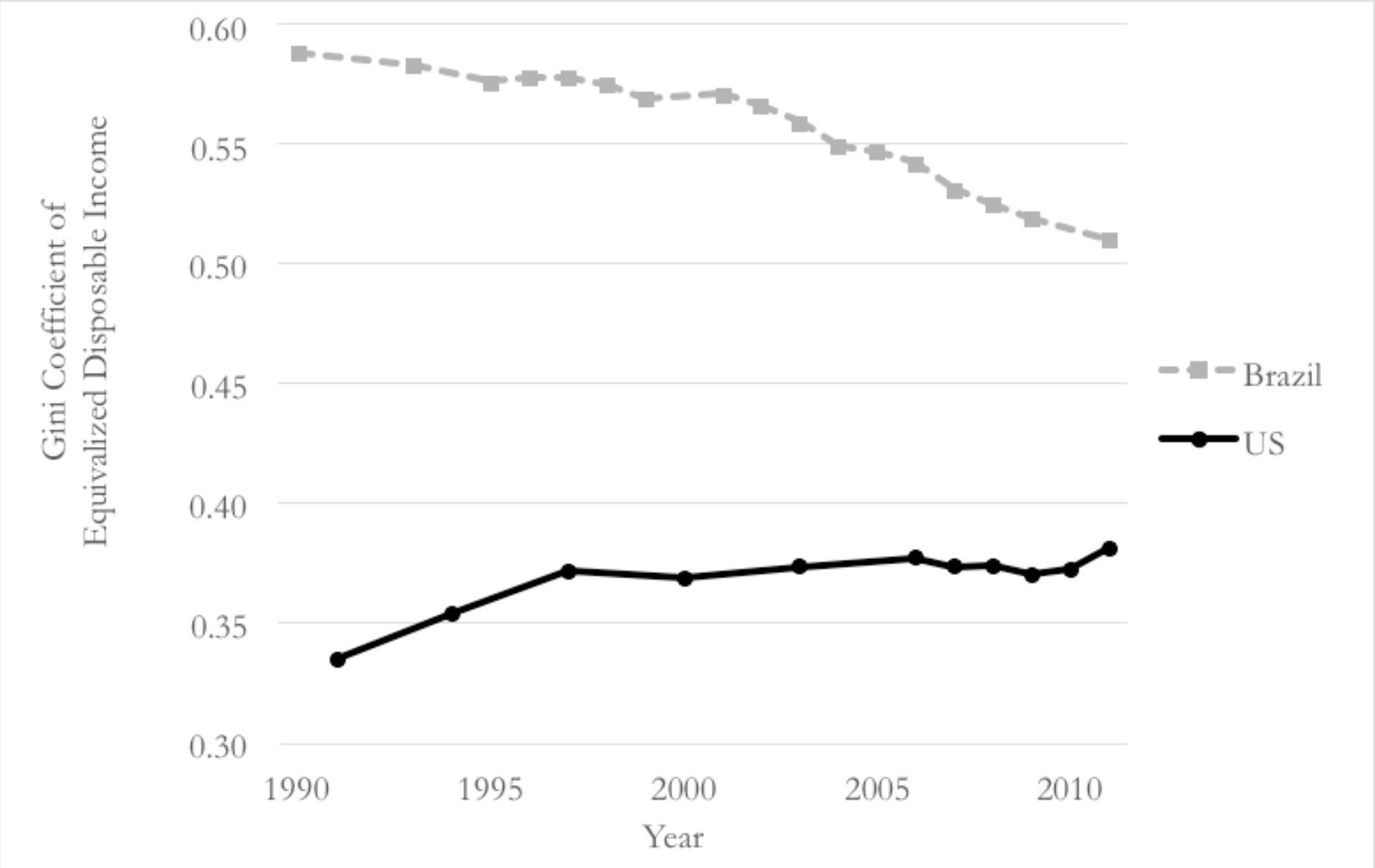
- Two largest economies and most populous countries in Western Hemisphere
 - Large racial/ethnic minorities
 - High income inequality and inequality of opportunity
 - Low intergenerational mobility
- Both countries have persistently been relatively unequal given their level of development
 - In 1989, Brazil was the second most unequal country in the world behind only Sierra Leone (Ferreira, Leite, and Litchfield, 2008)
 - In 1985, the United States was the second most unequal OECD country behind only Turkey (OECD, 2011)
 - US had similar level of inequality to Brazil today when it had similar level of development: Gini of 0.55 in 1940 (Plotnick et al., 1998)

Motivation

(continued)

- High inequality of opportunity
 - Brazil among highest of a large sample of countries and US high among developed countries (Brunori, Ferreira, and Peragine 2013)
- Low intergenerational mobility (Corak, 2011)
- Possibly “converging” levels of inequality and mobility
 - Inequality is higher in Brazil than the US
 - But falling in Brazil (Barros et al., 2010)
 - and rising in the US (Kenworthy and Smeeding, 2013)
 - Reasons to believe trends could continue
 - Intergenerational mobility is lower in Brazil than the US
 - But rising in Brazil (Ferreira et al. 2013)
 - and falling in the US (Aaronson and Mazumder, 2008)

INEQUALITY IN THE US AND BRAZIL, 1990-2011



Government Size

- In both countries, consolidated government is fairly large
- Primary spending (total government spending at the federal, state, and local levels minus interest payments)
 - Brazil: 41.4 % of GDP in 2009
 - US: 38.6 % of GDP in 2011

Our Analysis

- Comprehensive fiscal incidence analysis for the US and Brazil
 - Direct taxes (individual income tax, payroll taxes, corporate income tax, property taxes)
 - Direct transfers (cash transfers for poor and elderly, unemployment benefits, food transfers, refundable tax credits)
 - Indirect taxes (sales and excise taxes)
 - Indirect subsidies (household energy subsidies)
 - In-kind transfers (government-provided health, education, and housing)
- Multiple data sources
 - Current Population Survey 2011
 - American Community Survey 2011
 - National Household Education Survey 2007
 - Pesquisa de Orçamentos Familiares 2008-2009
 - Pesquisa Nacional por Amostra de Domicílios 2008

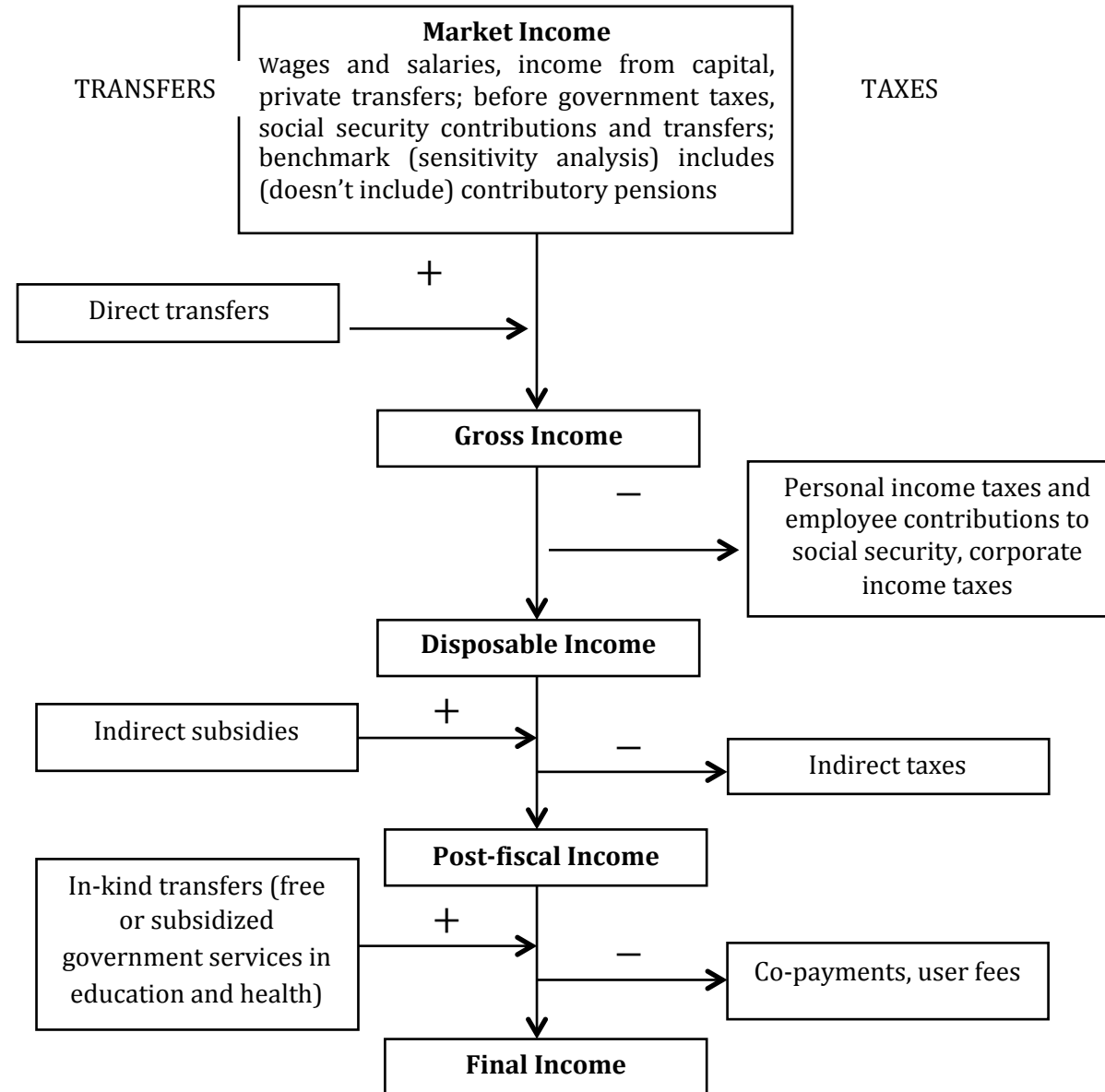
Composition of Revenues

- The composition of tax revenues differs substantially in the two countries, with the US relying heavily on direct taxes and Brazil relying heavily on consumption taxes.
 - US: direct taxes included in our analysis (individual income, corporate income, and property taxes) account for 11.7 % of GDP and the indirect taxes included (sales and excise taxes on consumption) represent 3.6 % of GDP.
 - Brazil: direct taxes 8.2 % of GDP and consumption taxes 12.9 % of GDP

Composition of Spending

- Brazil spends more as a % of GDP on direct transfers: 4.2 % compared to 3.3 % in the US when pensions are not considered a transfer
 - Difference is even larger if pensions are considered a transfer: 13.2 % of GDP in Brazil and 8.1 % in the US
- Similar spending on non-tertiary education: 4.1 % of GDP in Brazil vs. 4.2 % in the US
- Despite Brazil providing free universal healthcare and the US merely subsidizing healthcare for the poor and elderly, the Brazilian government spends 5.2 % of GDP vs. 6.3 % in the US

Diagram 1 – Definitions of Income Concepts: A Stylized Presentation



INCOME INEQUALITY BY INCOME CONCEPT IN THE UNITED STATES (2011) AND BRAZIL (2009)

	Market Income	Gross Income	Disposable Income ^c	Post-Fiscal Income	Final Income
<i>Benchmark case (pensions as market income)</i>					
United States					
Gini ^a	0.448	0.417	0.376	0.378	0.331
Reduction ^b	--	-0.030	-0.071	-0.069	-0.116
Brazil					
Gini ^a	0.551	0.532	0.512	0.509	0.432
Reduction ^b	--	-0.019	-0.039	-0.042	-0.119

Sensitivity analysis (pensions as transfer)

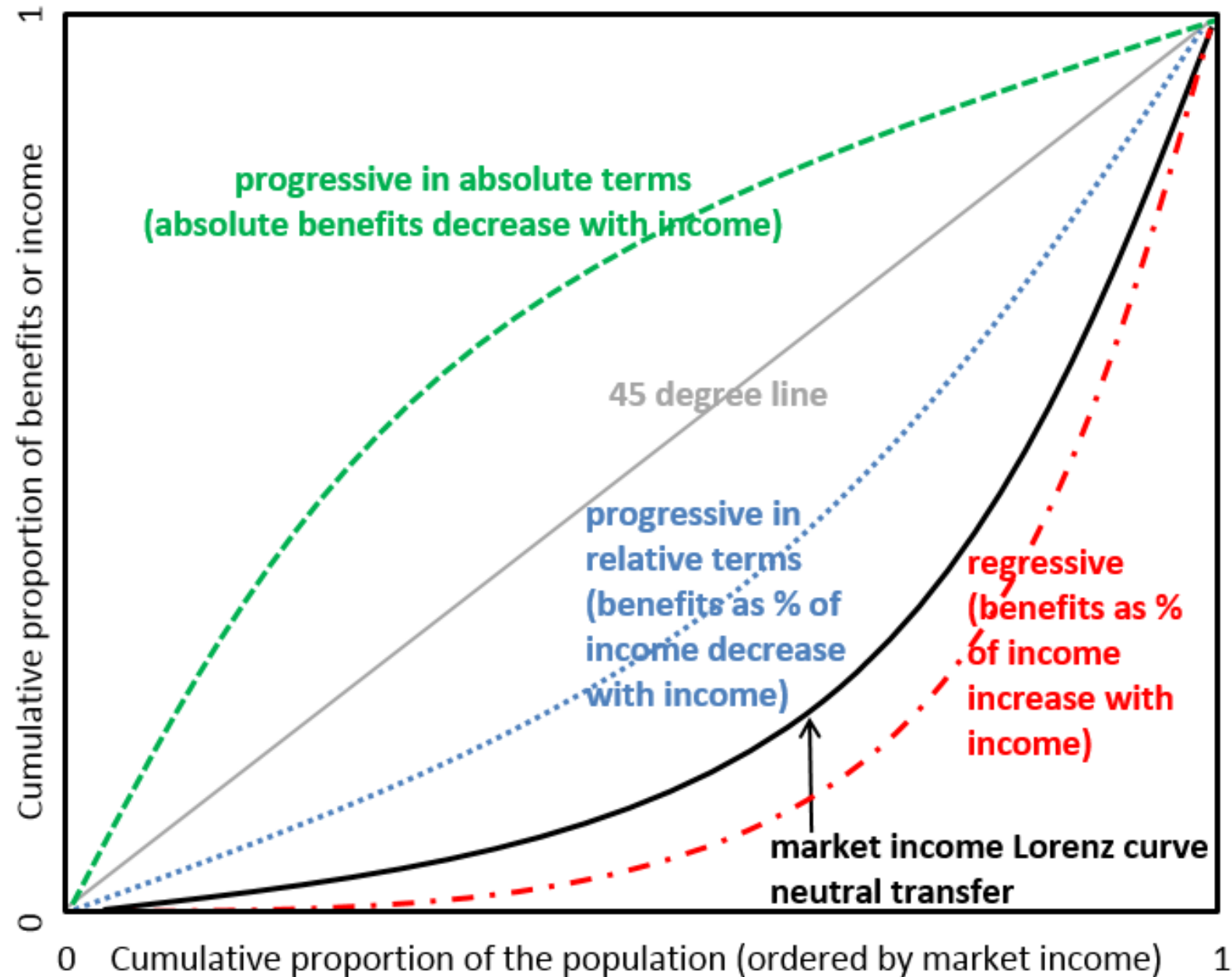
United States

Gini ^a	0.484	0.416	0.372	0.374	0.325
Reduction ^b	--	-0.067	-0.112	-0.110	-0.158

Brazil

Gini ^a	0.570	0.532	0.512	0.509	0.431
Reduction ^b	--	-0.039	-0.058	-0.061	-0.139

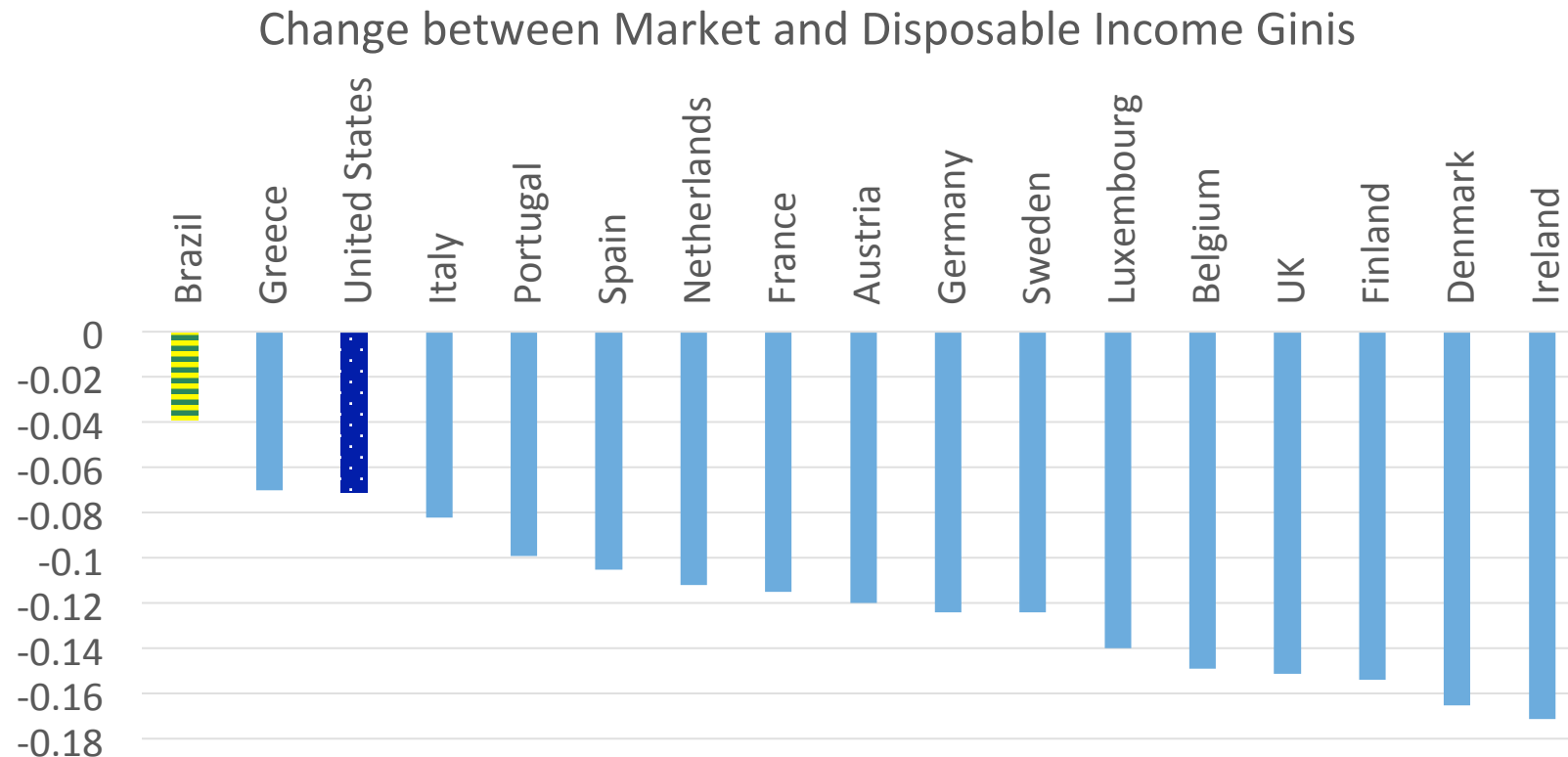
Definitions of Progressivity for Transfers



Source: adapted from
Lustig and Higgins
(2013)

Direct Taxes and Transfers

- Direct taxes and transfers reduce inequality by
 - 7.2 percentage points in US (11.2 with contributory pensions as transfers)
 - 3.8 percentage points in Brazil (5.8 with contributory pensions as transfers)



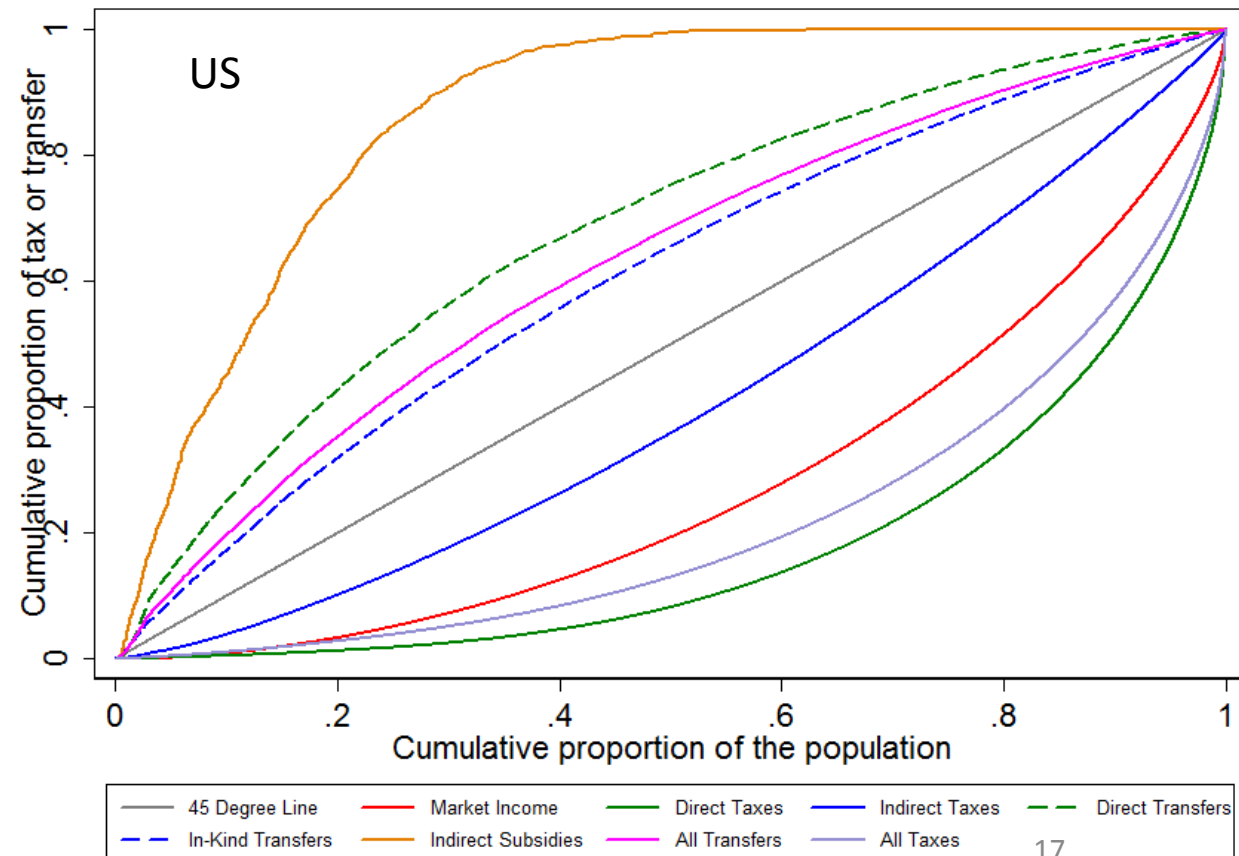
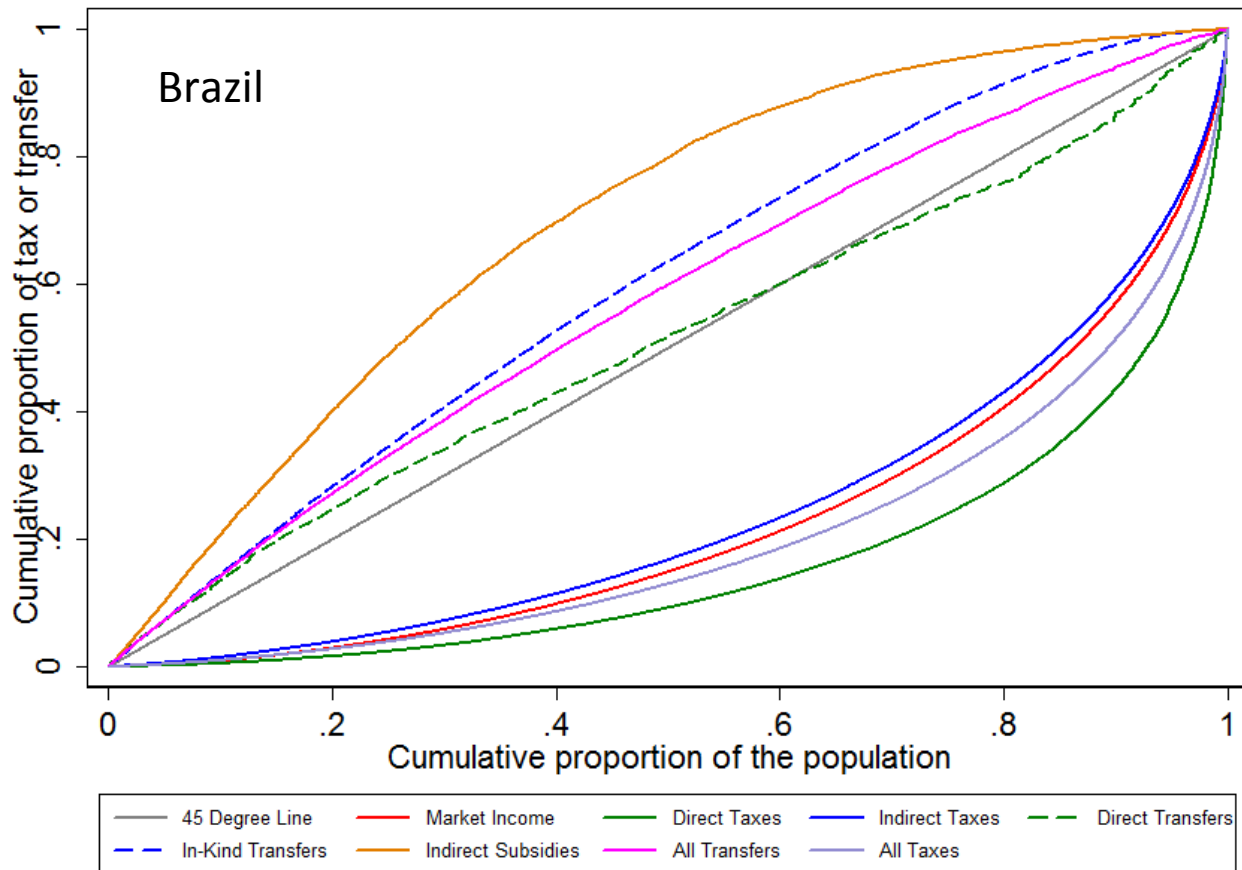
Source: authors' calculations for Brazil and US; Immervoll et al. (2009) for Europe

Direct Taxes and Transfers

- Underutilized individual income tax in Brazil
 - 2.1% of GDP, compared to 8.2% in US
- Less progressive direct taxes in Brazil (regardless of size)
 - Kakwani of 0.194 in the US compared to 0.122 in Brazil
- Brazil's well-targeted programs are small:
 - Bolsa Família (conditional cash transfers)
 - Benefício de Prestação Continuada (non-contributory pensions)
 - Programa de Aquisição de Alimentos – Leite (milk transfers)
 - ...make up less than 1% of GDP combined!
- Food stamps in US increase incomes of bottom decile (in %) more than any transfer program in Brazil

Indirect Taxes

- Large but only slightly regressive in Brazil
- Smaller but much more regressive in US



Household Energy Subsidies

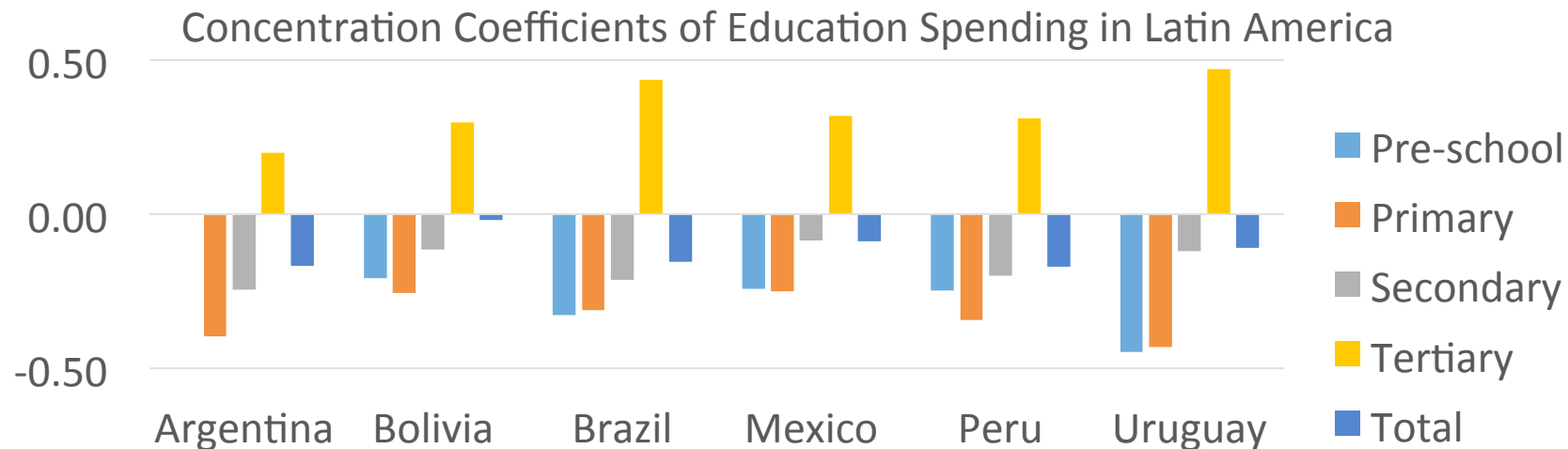
- Targeted to low-income families
- Progressive in absolute terms in both countries
 - Concentration coefficient of -0.73 in US, -0.33 in Brazil
- But very small programs
 - Increase incomes of poorest decile by only around 1% in both countries

In-kind Transfers

- An important part of redistribution in both countries
 - US: Gini reduced from **0.45** (market income) to **0.33** (final income)
 - 5.2 percentage points due to spending on non-tertiary education, health, and housing
 - Health: Medicaid is highly progressive in absolute terms (CC = -0.51)
 - Brazil: Gini reduced from **0.55** (market income) to **0.43** (final income)
 - 7.7 percentage points due to spending on non-tertiary education and health
 - All three types of public health spending analyzed
 - Preventative care
 - Basic care
 - Inpatient care
- ...are progressive in absolute terms

Education

- Spending on public preschool is particularly progressive
 - Head Start has a concentration coefficient of -0.68 in US
 - Public preschool has concentration coefficient of -0.30 in Brazil
- Tertiary education
 - Not possible to determine beneficiaries in US, so excluded for both countries
 - When included for Brazil, tertiary education spending almost neutral; overall education spending still progressive in absolute terms



Sources:

Argentina: Lustig and Pessino (2013)

Bolivia: Paz Arauco et al. (2013)

Brazil: Higgins and Pereira (2013)

Mexico: Scott (2013)

Peru: Jaramillo (2013)

Uruguay: Bucheli et al. (2013)