Taxation, Transfers, and Redistribution
Brazil and the United States

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Comparing Taxation, Transfers, and Redistribution in Brazil and the United States
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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.

Browse map for Publications by Country

Handbook and Diagnostic Questionnaire
Motivation

• Two largest economies and most populous countries in Western Hemisphere
  o Large racial/ethnic minorities
  o High income inequality and inequality of opportunity
  o Low intergenerational mobility

• Both countries have persistently been relatively unequal given their level of development
  o In 1989, Brazil was the second most unequal country in the world behind only Sierra Leone (Ferreira, Leite, and Litchfield, 2008)
  o In 1985, the United States was the second most unequal OECD country behind only Turkey (OECD, 2011)
  o 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
  o 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
  o Inequality is higher in Brazil than the US
    o But falling in Brazil (Barros et al., 2010)
    o and rising in the US (Kenworthy and Smeeding, 2013)
    o Reasons to believe trends could continue
  o Intergenerational mobility is lower in Brazil than the US
    o But rising in Brazil (Ferreira et al. 2013)
    o 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
  o Direct taxes (individual income tax, payroll taxes, corporate income tax, property taxes)
  o Direct transfers (cash transfers for poor and elderly, unemployment benefits, food transfers, refundable tax credits)
  o Indirect taxes (sales and excise taxes)
  o Indirect subsidies (household energy subsidies)
  o In-kind transfers (government-provided health, education, and housing)

• Multiple data sources
  o Current Population Survey 2011
  o American Community Survey 2011
  o National Household Education Survey 2007
  o Pesquisa de Orçamentos Familiares 2008-2009
  o 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

**Market Income**
- Wages and salaries, income from capital, private transfers; before government taxes, social security contributions and transfers; benchmark (sensitivity analysis) includes (doesn’t include) contributory pensions

**TAXES**
- Personal income taxes and employee contributions to social security, corporate income taxes
- Indirect taxes
- Co-payments, user fees

**TRANSFER**
- Direct transfers

**Gross Income**
- Indirect subsidies

**Disposable Income**
- Post-fiscal income

**Final Income**
- In-kind transfers (free or subsidized government services in education and health)
## INCOME INEQUALITY BY INCOME CONCEPT IN THE UNITED STATES (2011) AND BRAZIL (2009)

<table>
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<tr>
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<th>Market Income</th>
<th>Gross Income</th>
<th>Disposable Income&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Post-Fiscal Income</th>
<th>Final Income</th>
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<td><strong>United States</strong></td>
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<td><strong>Brazil</strong></td>
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<tr>
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<tr>
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<td>-0.039</td>
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### Sensitivity analysis (pensions as transfer)

#### United States

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#### Brazil

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Definitions of Progressivity for Transfers

progressive in absolute terms (absolute benefits decrease with income)

progressive in relative terms (benefits as % of income decrease with income)

regressive (benefits as % of income increase with income)

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)

Change between Market and Disposable Income Ginis

Source: authors’ calculations for Brazil and US; Immervoll et al. (2009) for Europe
Direct Taxes and Transfers

• Underutilized individual income tax in Brazil
  o 2.1% of GDP, compared to 8.2% in US

• Less progressive direct taxes in Brazil (regardless of size)
  o Kakwani of 0.194 in the US compared to 0.122 in Brazil

• Brazil’s well-targeted programs are small:
  o Bolsa Família (conditional cash transfers)
  o Beneficio de Prestação Continuada (non-contributory pensions)
  o 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
  o Concentration coefficient of -0.73 in US, -0.33 in Brazil
• But very small programs
  o 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)
  o 5.2 percentage points due to spending on non-tertiary education, health, and housing
  o Health: Medicaid is highly progressive in absolute terms (CC = -0.51)

• Brazil: Gini reduced from **0.55** (market income) to **0.43** (final income)
  o 7.7 percentage points due to spending on non-tertiary education and health
  o All three types of public health spending analyzed
    o Preventative care
    o Basic care
    o 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

Concentration Coefficients of Education Spending in Latin America

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)