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

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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, Ferriera, 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)
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
Preview of Results: Inequality Reduction

Inequality by Income Concept

Brazil

U.S.

Market | Net Market | Disposable | Post-Fiscal | Final

Gini Coefficient

- Market: 0.551
- Net Market: 0.533
- Disposable: 0.512
- Post-Fiscal: 0.509
- Final: 0.432

- Market: 0.451
- Net Market: 0.415
- Disposable: 0.380
- Post-Fiscal: 0.387
- Final: 0.333
Construction of Income Concepts: United States

**Market Income**
Labor income, farm income, non-farm business income, fringe benefits (including employer contributions to health insurance), retirement income, capital income (interest, dividends, rents), private transfers (alimony, child support, other), private scholarships, contributory pensions

**Benefits**
- Welfare, TANF, AFDC, non-contributory pensions (SSI), unemployment benefits, Pell grants (public scholarships), food stamps (SNAP), food transfers for women and children (WIC), school lunch
- Energy subsidies for low-income
- In-kind education benefits (including daycare through CCDF/TANF and preschool through Head Start) and health benefits (Medicare, Medicaid)

**Taxes**
- State and federal individual income taxes, state and federal corporate income taxes, and state and local property taxes
- State and federal sales and excise taxes (taking into account different rates by state)

**Net Market Income**

**Disposable Income**

**Post-Fiscal Income**

**Final Income**
Direct Taxes and Transfers

• Direct taxes and transfers reduce inequality by
  o 7.0 percentage points in US
  o 3.9 percentage points in Brazil

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
  - 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)
  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
  o Head Start has a concentration coefficient of -0.68 in US
  o Public preschool has concentration coefficient of -0.30 in Brazil

• Tertiary education
  o Not possible to determine beneficiaries in US, so excluded for both countries
  o 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)