Taxes, Social Spending and Income Redistribution in Latin America

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Main Questions

• How redistributive are governments in Latin America?
• What explains the differences in redistribution, poverty reduction and effectiveness across countries?
• Method: standard fiscal incidence analysis
How redistributive are governments in Latin America?

• How much inequality and poverty reduction is being accomplished through social spending, subsidies and taxes?
• How effective and efficient are governments at reducing inequality and poverty?
• Who bears the burden of taxes and receives the benefits from social spending?
• How are the poor and those vulnerable to poverty affected/benefited by taxes and social spending?
Indicators

- Pre- and post-taxes and benefits inequality (Gini)
- Pre- and post-taxes and cash transfers poverty (headcount for US$2.50 ppp/day)
- Effectiveness measures
- Fiscal incidence by decile
- Impoverishment: Fiscal mobility matrix
**BENEFITS**

**Market Income**
Wages and salaries, income from capital, private transfers; contributory pensions

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**TAXES**

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**Personal income and payroll taxes**

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**Net Market Income**

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**Direct transfers**

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**Disposable Income**

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**Indirect subsidies**

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**Post-fiscal Income**

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**In-kind transfers (free government services in education and health)**

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**Final Income**

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**Indirect taxes**

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**Co-payments, user fees**
REDISTRIBUTION

Tracking the Gini coefficient from Market to Final Income
POVERTY REDUCTION
Tracking the Headcount Ratio from Market to Post-Fiscal Income
How redistributive are governments in Latin America?

- How effective are governments at reducing inequality and poverty?

Effectiveness Index =

Percentage Decline from Pre-Transfer to Post-transfer Inequality (Poverty)

Transfer/GDP
Effectiveness
Cash Transfers and Inequality Reduction

Disposable Income

- Argentina
- Bolivia
- Brazil
- Mexico
- Peru
- Uruguay

Reduction in Gini (%)
Effectiveness Indicator
Effectiveness
Cash Transfers and Poverty Reduction

$2.50 PPP Poverty Line

Reduction in Headcount (%)

Effectiveness Indicator

Argentina
Bolivia
Brazil
Mexico
Peru
Uruguay
How redistributive are governments in Latin America?

- Who bears the burden of taxes and receives the benefits from cash transfers?
  - Fiscal incidence by decile

- How are the poor and those vulnerable to poverty affected/benefited by taxes and social spending?
  - Impoverishment: Fiscal mobility matrix
Incidence of Taxes and Cash Transfers
Net Change in Income after Direct and Indirect Taxes and Transfers by Decile

Bolivia
Brazil
Mexico
Peru
Uruguay
## Impoverishment

### Fiscal Mobility Matrix for Brazil

<table>
<thead>
<tr>
<th>Before taxes and transfers groups</th>
<th>&lt; 1.25</th>
<th>1.25–2.50</th>
<th>2.50–4.00</th>
<th>4.00–10.00</th>
<th>10.00–50.00</th>
<th>&gt; 50.00</th>
<th>% of Pop.</th>
<th>Mean Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1.25</td>
<td>69%</td>
<td>21%</td>
<td>6%</td>
<td>3%</td>
<td></td>
<td></td>
<td>5.7%</td>
<td>$0.74</td>
</tr>
<tr>
<td>1.25–2.50</td>
<td></td>
<td></td>
<td>81%</td>
<td>10%</td>
<td>4%</td>
<td></td>
<td>9.6%</td>
<td>$1.89</td>
</tr>
<tr>
<td>2.50–4.00</td>
<td></td>
<td></td>
<td></td>
<td>75%</td>
<td>9%</td>
<td>1%</td>
<td>11.3%</td>
<td>$3.24</td>
</tr>
<tr>
<td>4.00–10.00</td>
<td></td>
<td></td>
<td>15%</td>
<td>86%</td>
<td>3%</td>
<td></td>
<td>33.6%</td>
<td>$6.67</td>
</tr>
<tr>
<td>10.00–50.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15%</td>
<td>85%</td>
<td>35.3%</td>
<td>$19.90</td>
</tr>
<tr>
<td>&gt; 50.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.5%</td>
<td>$94.59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of Pop.</th>
<th>Mean Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3%</td>
<td>$0.86</td>
</tr>
<tr>
<td>10.7%</td>
<td>$1.91</td>
</tr>
<tr>
<td>13.5%</td>
<td>$3.25</td>
</tr>
<tr>
<td>35.8%</td>
<td>$6.61</td>
</tr>
<tr>
<td>32.5%</td>
<td>$19.34</td>
</tr>
<tr>
<td>3.2%</td>
<td>$88.70</td>
</tr>
<tr>
<td>100%</td>
<td>$12.17</td>
</tr>
</tbody>
</table>
What explains the differences?

• Budget size

• Progressivity

• Composition

• Leakages, coverage and size of cash transfers
Budget Size and Composition
Primary and Social Spending as % of GDP

- Brazil: 41% Primary, 16% Social
- Argentina: 41% Primary, 21% Social
- Bolivia: 33% Primary, 15% Social
- Uruguay: 28% Primary, 13% Social
- Mexico: 24% Primary, 10% Social
- Peru: 19% Primary, 7% Social
## Progressivity

### Kakwani Index for Taxes: Red= regressive

<table>
<thead>
<tr>
<th></th>
<th>Direct Taxes</th>
<th>Indirect Taxes</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Argentina</strong></td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td><strong>Bolivia</strong></td>
<td>ne</td>
<td>-0.20</td>
<td>-0.20</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td>0.27</td>
<td>-0.03</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>0.25</td>
<td>0.02</td>
<td>0.12</td>
</tr>
<tr>
<td><strong>Peru</strong></td>
<td>0.43</td>
<td>0.05</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Uruguay</strong></td>
<td>0.25</td>
<td>-0.05</td>
<td>0.07</td>
</tr>
</tbody>
</table>
Direct and Indirect Taxes as % of GDP

<table>
<thead>
<tr>
<th>Country</th>
<th>Direct Personal Income Taxes</th>
<th>VAT and Other Indirect Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Brazil</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>Mexico</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Peru</td>
<td>1%</td>
<td>8%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>5%</td>
<td>12%</td>
</tr>
</tbody>
</table>
## Progressivity

### Concentration Coefficients for Transfers

Green = progressive in abs terms

<table>
<thead>
<tr>
<th>Country</th>
<th>Direct Transfers</th>
<th>Education</th>
<th>Health</th>
<th>Social Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>-0.31</td>
<td>-0.20</td>
<td>-0.23</td>
<td>-0.15</td>
</tr>
<tr>
<td>Bolivia</td>
<td>-0.08</td>
<td>-0.02</td>
<td>-0.04</td>
<td>-0.04</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.03</td>
<td>-0.16</td>
<td>-0.12</td>
<td>-0.08</td>
</tr>
<tr>
<td>Mexico</td>
<td>-0.30</td>
<td>-0.09</td>
<td>0.04</td>
<td>-0.06</td>
</tr>
<tr>
<td>Peru</td>
<td>-0.48</td>
<td>-0.17</td>
<td>0.18</td>
<td>-0.02</td>
</tr>
<tr>
<td>Uruguay</td>
<td>-0.47</td>
<td>-0.11</td>
<td>-0.10</td>
<td>-0.16</td>
</tr>
</tbody>
</table>
Reduction in inequality with respect to Market Income Gini coefficient, Social Spending, and Redistributive Effectiveness
Leakages of Direct Cash Transfers

<table>
<thead>
<tr>
<th>Country</th>
<th>Non poor</th>
<th>2.5&lt;=Poor&lt;4</th>
<th>Poor&lt;2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>62.0%</td>
<td>12.8%</td>
<td>25.2%</td>
</tr>
<tr>
<td>Brazil</td>
<td>73.5%</td>
<td>9.7%</td>
<td>16.8%</td>
</tr>
<tr>
<td>Peru</td>
<td>29.1%</td>
<td>24.0%</td>
<td>46.9%</td>
</tr>
</tbody>
</table>
Coverage of Direct Cash Transfers

<table>
<thead>
<tr>
<th>Country</th>
<th>Poor&lt;2.5</th>
<th>2.5&lt;=Poor&lt;4</th>
<th>Non poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>87.7%</td>
<td>67.8%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Brazil</td>
<td>93.3%</td>
<td>73.1%</td>
<td>29.2%</td>
</tr>
<tr>
<td>Peru</td>
<td>57.7%</td>
<td>41.9%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

Legend:
- Red: Poor<2.5
- Green: 2.5<=Poor<4
- Blue: Non poor
Incentives & Sustainability: Argentina

- Poverty reduction and redistribution as well as effectiveness are the highest in Argentina. Is Argentina a model of redistributive policies?
  - Increasingly relied on redistribution through cash transfers => pension moratorium
  - Pension moratorium: good for elderly women bad for incentives (informality) and problems of unfairness
  - Fiscal sustainability called into question: source of revenues such as inflation tax and international reserves are problematic
Argentina-Reduction in Inequality: Market (blue) vs. Redistribution (red)

- 2003-06: 124% Market, -24% Redistribution
- 2006-09: 58% Market, 43% Redistribution

Redistribution
Market
Argentina-Reduction in Poverty: Market (blue) vs. Redistribution (red)

2003-06: 110% (Market) vs. -10% (Redistribution)

2006-09: 88% (Redistribution) vs. 12% (Market)
In sum...

• Taxes and transfers reduce inequality and poverty by nontrivial amounts in Argentina, Brazil, and Uruguay, less so in Mexico and relatively little in Bolivia and Peru.

• Personal income tax varies from around five percent of GDP in Uruguay to nearly zero in Bolivia.

• In all countries in which they exist, direct taxes are progressive, but because direct taxes are a small percentage of GDP almost everywhere their redistributive impact is small.
In sum...

- Cash transfers have reduced extreme poverty by more than 60 percent in Uruguay and Argentina but only by seven percent in Peru, which spends too little on cash transfer to achieve much poverty reduction.

- Bolivia spends five times more than Peru (as a share of GDP) but because funds are not targeted to the poor, the amount of redistribution and poverty reduction has been limited. It is only slightly higher than Peru.
In sum…

• In Brazil and Bolivia, indirect taxes wipe out most effect of direct transfers, and poverty is almost the same after as before taxes and cash transfers.
• In contrast, in Mexico poverty after indirect taxes and subsidies is lower because the poor pay little in the form of indirect taxes due to exemptions and informality.
• Public spending on education and health is more equalizing than cash transfers in all the countries.
In sum...

The largely positive redistributive picture of Argentina, Brazil and Uruguay hides some unpleasant facts.

• For instance, about 16 percent of Brazilian social spending goes to tertiary education, mostly benefitting the five percent of the population with incomes above US$50 per day.

• Uruguay, too, allocates subsidies to upper income students.

• In Argentina, progressive cash transfers are substantially less than indirect (and regressive) subsidies to agricultural producers, airlines and other transportation sectors, manufacturing industries, and energy companies. Argentina’s sharp rise of public spending during the 2000s has been increasingly financed by distortionary taxes and unorthodox and unsustainable revenue-raising mechanisms.
THANK YOU
What is CEQ?

www.commitmenttoequity.org
COMMITMENT TO EQUITY

Led by Nora Lustig (Tulane University) and Peter Hakim (Inter-American Dialogue), the Commitment to Equity (CEQ) project is designed to analyze the impact of taxes and social spending on inequality and poverty, and to provide a roadmap for governments, multilateral institutions, and nongovernmental organizations in their efforts to build more equitable societies. CEQ/Latin America is a joint project of the Inter-American Dialogue (IAD) and Tulane University’s Center for Inter-American Policy and Research (CIPR) and Department of Economics. The project has received financial support from the Canadian International Development Agency (CIDA), the Development Bank of Latin America (CAF), the General Electric Foundation, the Inter-American Development Bank (IADB), the International Fund for Agricultural Development (IFAD), the Norwegian Ministry of Foreign Affairs, the United Nations Development Programme’s Regional Bureau for Latin America and the Caribbean (UNDP/RBLAC), and the World Bank. 
http://commitmenttoequity.org
• Tulane University; for Latin America, with the Inter-American Dialogue
• 12 countries from Latin America; 6 more in process of being added
• 5 in progress: Chile, Colombia, Costa Rica, El Salvador, Guatemala
• Other regions: AfrDB, WB pilot studies in 5 regions outside of LAC


