INEQUALITY AND FISCAL REDISTRIBUTION IN MIDDLE INCOME COUNTRIES
Brazil, Chile, Colombia, Indonesia, Mexico, Peru and South Africa

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What is CEQ: Description of Project

- The CEQ project is an initiative of:
  - The Center for Inter-American Policy and Research (CIPR) and the Department of Economics, Tulane University, the Inter-American Dialogue and the Center for Global Development

- CEQ’s goals are to:
  - Foster evidence-based policy discussion
  - Assist governments, multilateral institutions, and nongovernmental organizations in their efforts to build more equitable societies
What is CEQ: the CEQ Assessment

The CEQ project developed the CEQ Assessment, a diagnostic instrument

• Comprehensive framework to analyze the effect of taxation and public spending on inequality and poverty
• Method: Fiscal Incidence analysis and qualitative diagnostic approach
• Application of a common methodology across countries makes cross-country comparisons more accurate
• Methodology is designed to be as comprehensive as possible without sacrificing detail in any particular component of the analysis
Paper based on following CEQ studies:


- **Chile:** Ruiz-Tagle, Jaime and Dante Contreras. 2014. CEQ Master Workbook: Chile, August.

- **Colombia:** Melendez, Marcela. 2014. CEQ Master Workbook: Colombia, November 21, Tulane University.

- **Indonesia:** Afkar, R., J. Jellema, and M. Wai-Poi, "Fiscal Policy, Redistribution, and Inequality in Indonesia," in G. Inchauste and N. Lustig (eds), The Distributional Impact of Fiscal Policy: Experience from Developing Countries, forthcoming.


Market Income
Wages and salaries, income from capital, private transfers (remittances, private pensions, etc.) before taxes, social security contributions and government transfers AND contributory social insurance old-age pensions ONLY in the case in which pensions are treated as deferred income

TRANSFERS
Direct cash and near cash transfers: conditional and unconditional cash transfers, school feeding programs, free food transfers, etc.

TAXES
Personal income taxes AND employee contributions to social security ONLY in the case that contributory pensions are treated as transfers

Disposable Income
Indirect subsidies: energy, food and other general or targeted price subsidies

Post-fiscal (or Consumable) Income
In-kind transfers: free or subsidized government services in education and health

Final Income
Indirect taxes: VAT, excise taxes and other indirect taxes
Co-payments, user fees
Figure 1: Size and composition of government budgets (circa 2010)

Panel a: Composition of Social Spending as a Share of GDP

(-ranked by social spending/GDP-)

<table>
<thead>
<tr>
<th>Country</th>
<th>Social Spending Distribution</th>
</tr>
</thead>
</table>
| Indonesia* (2012)| Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| Peru (2009)      | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| Chile** (2009)   | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| Colombia (2010)  | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| Mexico (2010)    | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| South Africa *** (2010) | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| Brazil (2009)    | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| Seven Countries  | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
| OECD             | Direct Transfers: 1.5%
                              | Education: 1.5%
                              | Health: 1.5%
                              | Contributory Pensions: 1.5%
                              | Other Social Spending: 1.5%
                              | GNI per capita (2011 PPP): 2.5% |
Panel b: Composition of Total Government Revenues as a Share of GDP

(rank by total government revenue/GDP)
Figure 2: Fiscal Policy and Inequality (circa 2010) (Gini Coefficient for Market, Disposable, Post-fiscal and Final Income)

Panel a: Pensions in Market Income
Panel b: Pensions as Transfers

Brazil (2009)  
Chile* (2009)  
Colombia (2010)  
Indonesia** (2012)  
Mexico (2010)  
Peru (2009)  

Market Income  Disposable Income  Post-fiscal Income  Final Income
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension as % GDP</td>
<td>9.06%</td>
<td>3.87%</td>
<td>3.14%</td>
<td>0.76%</td>
<td>2.60%</td>
<td>0.90%</td>
<td>0.97%</td>
</tr>
<tr>
<td>Gini Market Income w/o Pensions</td>
<td>0.5999</td>
<td>0.5635</td>
<td>0.5781</td>
<td>0.3944</td>
<td>0.5087</td>
<td>0.5025</td>
<td>--</td>
</tr>
<tr>
<td>Gini Market Income w/Pensions</td>
<td>0.5788</td>
<td>0.5637</td>
<td>0.5742</td>
<td>0.3942</td>
<td>0.5107</td>
<td>0.5039</td>
<td>0.7712</td>
</tr>
<tr>
<td>Change in %</td>
<td>3.6%</td>
<td>-0.04%</td>
<td>0.7%</td>
<td>0.1%</td>
<td>-0.4%</td>
<td>-0.3%</td>
<td>--</td>
</tr>
<tr>
<td>Change in pptts</td>
<td>0.0211</td>
<td>-0.0002</td>
<td>0.0039</td>
<td>0.0002</td>
<td>-0.0019</td>
<td>-0.0014</td>
<td>--</td>
</tr>
</tbody>
</table>
A. Redistribution and market income inequality

![Graph showing the relationship between Gini Market Income and Redistributive Effect with points for BRA, CHL, MEX, PER, and COL, and ZAF at the highest end.]
B. Final income inequality and market income inequality

<table>
<thead>
<tr>
<th>Country</th>
<th>Final Gini</th>
<th>Market Gini</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRA</td>
<td>0.45</td>
<td>0.58</td>
</tr>
<tr>
<td>CHL</td>
<td>0.48</td>
<td>0.63</td>
</tr>
<tr>
<td>COL</td>
<td>0.53</td>
<td>0.68</td>
</tr>
<tr>
<td>IDN</td>
<td>0.38</td>
<td>0.43</td>
</tr>
<tr>
<td>MEX</td>
<td>0.43</td>
<td>0.55</td>
</tr>
<tr>
<td>PER</td>
<td>0.38</td>
<td>0.43</td>
</tr>
<tr>
<td>ZAF</td>
<td>0.35</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Gini Final Income vs. Gini Market Income
Figure 4. Redistribution and social spending, 2010
Redistributive Effect: Brazil, Chile, Colombia, Indonesia, Mexico, Peru, South Africa EU and the United States
(Change in Gini Points: Market to Disposable Income; circa 2010)
Marginal Contribution of Taxes and Transfers (circa 2010)
(Pensions as Market Income)
Panel a. Redistributive Effect from Market to Disposable

<table>
<thead>
<tr>
<th></th>
<th>Brazil</th>
<th>Chile*</th>
<th>Colombia</th>
<th>Indonesia**</th>
<th>Mexico</th>
<th>Peru</th>
<th>SA***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct taxes</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0075</td>
</tr>
<tr>
<td>Direct transfers</td>
<td>0.0453</td>
<td>0.0340</td>
<td>0.0788</td>
<td>0.0788</td>
<td>0.0788</td>
<td>0.0788</td>
<td>0.0788</td>
</tr>
<tr>
<td>Redistributive Effect</td>
<td>0.0340</td>
<td>0.0044</td>
<td>0.0236</td>
<td>0.0099</td>
<td>0.0099</td>
<td>0.0099</td>
<td>0.0099</td>
</tr>
</tbody>
</table>
Panel b. Redistributive Effect from Market to Post-Fiscal

<table>
<thead>
<tr>
<th>Country</th>
<th>Direct Gtaxes</th>
<th>Direct Gtransfers</th>
<th>Indirect Gtaxes</th>
<th>Indirect Gsubsidies</th>
<th>Redistributive Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>0.0446</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile*</td>
<td>0.0370</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>0.0073</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia**</td>
<td>0.0061</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>0.0308</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td></td>
<td></td>
<td></td>
<td>0.0151</td>
<td></td>
</tr>
<tr>
<td>SA***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.0789</td>
</tr>
</tbody>
</table>
Fiscal Policy and Poverty Reduction (circa 2010)
(Change in Headcount Ratio from Market to Post-fiscal Income for Pensions in Market Income and Pensions in Transfers; in %)\(^a\)
Net Payers to the Fiscal System (circa 2010)
Panel a: Pensions as Market Income

- Indonesia*(2012)
- Chile**(2009)
- Colombia(2010)
- Mexico(2010)
- Peru(2009)
- South Africa*** (2010)
- Brazil(2009)

- $y < 1.25$
- $1.25 \leq y < 2.5$
- $2.5 \leq y < 4$
- $4 \leq y < 10$
- $10 \leq y < 50$
- $y \geq 50$
## Progressivity and Pro-poorness of Education and Health Spending. Summary of Results

<table>
<thead>
<tr>
<th>Country</th>
<th>Educ Total</th>
<th>Pre-school</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil (2009)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Chile (2009)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Colombia (2010)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Indonesia (2012)</td>
<td>+</td>
<td>na</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Mexico (2010)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Peru (2009)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>South Africa (2010)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

*CC is almost equal to market income Gini coefficient

If the Concentration Coefficient is higher or equal to -0.5 but not higher than 0.5, it was considered equal to 0.
Obrigada