Fiscal Policy and Redistribution: Evidence from low and middle income countries CEQ Assessments

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Outline

• What a CEQ assessment is?

• What does the empirical evidence suggest?

• Evidence for 31 countries

• Lessons learnt
Fiscal policy, defined as the use of government spending and taxation…

• important tool for the government to influence the economy,
• but crucially, social well-being by affecting inequalities, poverty, and social exclusion.

While critical, we have to use it smartly…

we can all agree that the poor cannot be net payers of the system
CEQ Assessment: Income concepts

MARKET INCOME

PLUS DIRECT TRANSFERS MINUS DIRECT TAXES

DISPOSABLE INCOME

PLUS INDIRECT SUBSIDIES MINUS INDIRECT TAXES

CONSUMABLE INCOME

PLUS MONETIZED VALUE OF PUBLIC SERVICES: EDUCATION & HEALTH

FINAL INCOME
CEQ Assessment

• How much income redistribution and poverty reduction is being accomplished through fiscal policy?

• How equalizing and pro-poor are taxes and government spending?

• How effective are they in reducing inequality and poverty?

• What is the impact of tax/benefit reforms?
Main caveats

- Accounting approach
  - no behavioral responses
  - no general equilibrium effects
  - no intertemporal effects
CEQ Coverage: Nearly 80% of world’s extreme poor
42 finished
23 in progress
How much do governments collect?

Source: Lustig (2018)

Data shown here is administrative data as reported by the studies cited and the number not necessarily coincide with the data bases in multilateral or other organizations (e.g., World Bank’s WDI).
How much do governments spend on...?

(ranked by social spending plus contributory pensions / GDP; GNI right hand scale)

- Direct transfers – 2% vs 4% (OECD)
- Education – 4% vs 5% (OECD)
- Health – 3% vs 6% (OECD)
- Other social spending – 3%
- (Averages)

Source: Lustig (2018)

Data shown here is administrative data as reported by the studies cited and the number not necessarily coincide with the data bases in multilateral or other organizations (e.g., World Bank's WDI).
Fiscal policy and inequality
In NO country, inequality increases as a result of taxes, subsidies and social spending.

Source: Lustig (2018)
How much reduction in inequality is being accomplished through fiscal policy?

(Change in Gini: market income plus pensions and market income)

(ranked by redistributive effect (left hand scale); Gini coefficient)

Marginal Contribution to inequality wr Consumable Income | Concentration Coefficient (market income plus pensions)
--- | ---
--- | --- | --- | ---
Taxes | 0.01 | 0.03 | 0.50 | 0.90 |
Transfers | 0.02 | 0.07 | -0.20 | -0.27 |
Indirect taxes | -0.004 | 0.000 | 0.32 | 0.69 |
Subsidies | 0.00 | -- | 0.18 | -- |

Source: Lustig (2018)
Fiscal policy and poverty
How much poverty reduction is accomplished through fiscal policy?

Source: Lustig (2018)

<table>
<thead>
<tr>
<th>Fiscal Policies</th>
<th>Marginal Contribution to poverty (poverty line 4 dollar PPP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All direct transfers</td>
<td>0.04</td>
</tr>
<tr>
<td>Direct Taxes</td>
<td>-0.00</td>
</tr>
<tr>
<td>Income taxes</td>
<td>-0.00</td>
</tr>
<tr>
<td>Property taxes</td>
<td>-0.00</td>
</tr>
<tr>
<td>Indirect Taxes</td>
<td>-0.05</td>
</tr>
<tr>
<td>Subsidies</td>
<td>0.00</td>
</tr>
</tbody>
</table>

(indicators: 4.3% 2.0% 1.0% 1.0% 0.7% 0.5% 0.4% -0.1% -0.2% -0.4% -0.4% -1.7% -2.1% -2.7% -2.7% -2.9% -4.7% -5.6% -6.2% -8.0% -10.1% -12.1% -13.9% -15.7% -18.8% -20.5% -22.8% -24.2% -29.9% -42.0% -49.8% -55.4%)

(ranked by poverty reduction in %; poverty line 4 dollar PPP)
Table 10-1: Fiscal Impoverishment (circa 2010): Contributory Pensions as Deferred Income; in Percentage

<table>
<thead>
<tr>
<th>Country (survey year)</th>
<th>Market income plus contributory pensions Poverty headcount (%)</th>
<th>Change in poverty headcount (p.p.)</th>
<th>Market income plus contributory pensions inequality (Gini)</th>
<th>Reynolds-Smolensky Change in inequality (▲Gini)</th>
<th>Fiscally impoverished as % of population</th>
<th>Fiscally Impoverished as % of consumable income poor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Upper-middle income countries, using a poverty line of $2.5 PPP 2005 per day</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil (2009)</td>
<td>16.8</td>
<td>-0.8</td>
<td>57.5</td>
<td>4.6</td>
<td>-3.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Chile (2013)</td>
<td>2.8</td>
<td>-1.4</td>
<td>49.4</td>
<td>3.2</td>
<td>-3.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Ecuador (2011)</td>
<td>10.8</td>
<td>-3.8</td>
<td>47.8</td>
<td>3.5</td>
<td>-3.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Mexico (2012)</td>
<td>13.3</td>
<td>-1.2</td>
<td>54.4</td>
<td>3.8</td>
<td>-2.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Peru (2011)</td>
<td>13.8</td>
<td>-0.2</td>
<td>45.9</td>
<td>0.9</td>
<td>-0.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Russia (2010)</td>
<td>4.3</td>
<td>-1.3</td>
<td>39.7</td>
<td>3.9</td>
<td>-2.6</td>
<td>1.1</td>
</tr>
<tr>
<td>South Africa (2010)</td>
<td>49.3</td>
<td>-5.2</td>
<td>77.1</td>
<td>8.3</td>
<td>-7.7</td>
<td>5.9</td>
</tr>
<tr>
<td>Tunisia (2010)</td>
<td>7.8</td>
<td>-0.1</td>
<td>44.7</td>
<td>8.0</td>
<td>-6.9</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Panel B: Lower-middle income countries, using a poverty line of $1.25 2005 PPP per day</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armenia (2011)</td>
<td>21.4</td>
<td>-9.6</td>
<td>47.4</td>
<td>12.9</td>
<td>-9.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Bolivia (2009)</td>
<td>10.9</td>
<td>-0.5</td>
<td>50.3</td>
<td>0.6</td>
<td>-0.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Dominican Republic (2013)</td>
<td>6.8</td>
<td>-0.9</td>
<td>50.2</td>
<td>2.2</td>
<td>-2.2</td>
<td>1.0</td>
</tr>
<tr>
<td>El Salvador (2011)</td>
<td>4.3</td>
<td>-0.7</td>
<td>44.0</td>
<td>2.2</td>
<td>-2.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Ethiopia (2011)</td>
<td>31.9</td>
<td>2.3</td>
<td>32.2</td>
<td>2.3</td>
<td>-2.0</td>
<td>28.5</td>
</tr>
<tr>
<td>Ghana (2013)</td>
<td>6.0</td>
<td>0.7</td>
<td>43.7</td>
<td>1.6</td>
<td>-1.4</td>
<td>5.1</td>
</tr>
<tr>
<td>Guatemala (2010)</td>
<td>12.0</td>
<td>-0.8</td>
<td>49.0</td>
<td>1.4</td>
<td>-1.2</td>
<td>7.0</td>
</tr>
<tr>
<td>Indonesia (2012)</td>
<td>12.0</td>
<td>-1.5</td>
<td>39.8</td>
<td>1.1</td>
<td>-0.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Sri Lanka (2010)</td>
<td>5.0</td>
<td>-0.7</td>
<td>37.0</td>
<td>1.3</td>
<td>-1.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Tanzania (2011)</td>
<td>43.7</td>
<td>7.9</td>
<td>38.2</td>
<td>4.1</td>
<td>-3.8</td>
<td>50.9</td>
</tr>
</tbody>
</table>
| **Source:** Higgins and Lustig (2016).
Lessons learnt:

1. Analyzing the **tax side without the spending side**, or vice versa, **is not very useful**

   - Taxes can be unequalizing but spending so equalizing that the former effect of taxes is more than compensated
   - Taxes can be regressive but when combined with transfers make the system more equalizing than without the regressive taxes (Lambert, 2001) (e.g., VAT in Chile)

2. Analyzing the impact on inequality only, can be misleading

   - Fiscal systems can be **equalizing but poverty increasing**

3. Analyzing the **poverty impact with traditional indicators** can be misleading

   - The headcount ratio or other typical poverty measures may decline while at the same time a substantial proportion of poor people are made poorer
Teams and References by Country  
(the year for which the analysis was conducted in parentheses); 
C=consumption & I=income)

Rossignolo, Dario. 2017. “**CEQ Master Workbook: Argentina (2012-2013).**” CEQ Data Center on Fiscal Redistribution (CEQ Institute, Tulane University). May 19, 2017


Teams and References by Country
(the year for which the analysis was conducted in parentheses); C=consumption & I=income


Llerena Pinto, Freddy Paul, Maria Cristhina Llerena Pinto, Roberto Carlos Saa Daza and Maria Andrea Llerena Pinto. 2017. “CEQ Master Workbook: Ecuador (2011-2012),” CEQ Data Center on Fiscal Redistribution (CEQ Institute, Tulane University), January 5, 2017


Teams and References by Country
(the year for which the analysis was conducted in parentheses); C=consumption & I=income)


Cabrera, Maynor and Hilcias E. Moran. 2015. “CEQ Master Workbook: Guatemala (2011),” CEQ Data Center on Fiscal Redistribution (CEQ Institute, Tulane University, Instituto Centroamericano de Estudios Fiscales (ICEFI) and International Fund for Agricultural Development (IFAD)). May 6, 2015


Castaneda, Ricardo and Ilya Espino. 2015. “CEQ Master Workbook: Honduras (2011),” CEQ Data Center on Fiscal Redistribution (CEQ Institute, Tulane University, Instituto Centroamericano de Estudios Fiscales (Icefi) and International Fund for Agricultural Development (IFAD)). August 18, 2015


Teams and References by Country
(the year for which the analysis was conducted in parentheses); C=consumption & I=income)


Cabrera, Maynor and Hilcias E. Moran. 2015. “CEQ Master Workbook: Nicaragua (2009),” CEQ Data Center on Fiscal Redistribution (CEQ Institute, Tulane University, Instituto Centroamericano de Estudios Fiscales (Icefi) and International Fund for Agricultural Development (IFAD)). October 14, 2015

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• __________. 2016. “Inequality and Fiscal Redistribution in Middle Income Countries: Brazil, Chile, Colombia, Indonesia, Mexico, Peru and South Africa.” *Journal of Globalization and Development* 7, no. 1, pp. 17-60. DOI: 10.1515/jgd-2016-0015
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• __________. 2017. “El impacto del sistema tributario y el gasto social en la distribución del ingreso y la pobreza en América Latina.” El Trimestre Económico, no. 335, pp.493-568


Thanks!