Social Spending, Distribution and Equal Opportunities

Jose Cuesta
Poverty Reduction and Equity
World Bank

April 22, 2013
IMF and World Bank Conference
“Fiscal Policy, Equity, and Long-Term Growth in Developing Countries”
Increasing attention to inequality and fiscal policies when international income inequality is declining?

International Income Inequality

B. Milanovic (2012) “Global income inequality by the numbers: in history and now”. WB PRWP 6259
Declines are not uniform across countries

Inequality in Selected Developing Countries

World Bank Development Indicators
Fiscal policies may play a significant role.

Distributive effects of fiscal policies

• **The Conventional Wisdom**
  • Progressive direct taxes, regressive indirect taxes
  • Spending more redistributive than taxes
  • Progressive spending on primary services, regressive on tertiary services

• **Conventions increasingly challenged**
  • Variations between developed and developing countries (Bastiagili et al, 2012)
  • Variations across developing countries (Lustig et al 2011)
The key policy issue

- No global consensus on level of “desirable” inequality

- Nor a global consensus on the “desirable” role of fiscal policies:
  - Separate roles of taxes (revenue collection) and spending (redistribution)?
  - OR both taxes and spending should be equalizing?

- A stronger consensus around equal opportunities
Three practical issues

- **Traditional incidence analysis needs more “resolution”**
  - More tax and spending categories
  - Better sub-national information
  - Better identification of vulnerable groups

- **Include a long(er) term horizon**
  - Go beyond short term immediate effects

- **From diagnosis to guiding policy making**
  - Provide “value added” information to take decisions
Three practical issues

- Traditional incidence analysis needs more “resolution”
  - More tax and spending categories
  - Better sub-national information
  - Better identification of vulnerable groups

- Include a long(er) term horizon
  - Go beyond short term immediate effects

- From diagnosis to guiding policy making
  - Provide “value added” information to take decisions
Some proposed changes

• Build from the **traditional** BIA analysis
• Go beyond outcomes into **opportunities**

• Opportunities today relate to **outcomes tomorrow**
• Income (C, W) not useful in identifying **vulnerable groups**
• Rather, **circumstance groups**

• **So what?** Need to improve not only diagnosis but policy (targeting and C/B of simulated spending reforms)
Opportunities

• Basic services that society agrees are critical for individual development and decent life

• Universality is a valid social objective

• Examples:
  • School attendance
  • Access to water, to sanitation, to electricity
  • All vaccinations complete
  • Assisted birth
  • Timely and affordable health care
Equality of Opportunities 101

Circumstances

• Characteristics outside the control of individuals

• Society wants these to not influence a child’s access to basic opportunities

• Examples:
  • Gender
  • Parents’ education, gender
  • Household’s location
  • Number (order) of siblings, household composition
  • Ethnicity, religion
Equality of opportunities when

- an opportunity is achieved with the same level of effort across different circumstances
- Circumstances outside an individual’s control should not determine the person’s access to opportunities
- Only differences in effort, luck, unobservables (talent), choices (preferences) should determine differentials
A simple extension to BIA: Opportunity Incidence Analysis

* **Step 1:** Estimate gross benefits from public service provision (on education, health...)
* **Step 2:** Identify all beneficiaries of the service provision;
* **Step 3:** Obtain gross unitary benefits, by dividing total benefits (from step 1) among total beneficiaries (step 2);
* **Step 4:** Rank the identified beneficiaries in the household dataset according to their distribution of probability of access to a particular opportunity or by different circumstance groups.
* **Step 5:** Assign the gross unitary benefit (as obtained in step 3) across the distribution of beneficiaries identified in the household dataset
* **Step 6:** Calculate the out-of-pocket household per capita spending from the household dataset; and
* **Step 7:** Subtract to the expenditure assigned as the benefit, the out-of-pocket household per capita spending. The resulting figure is the net unitary benefit per individual.
OIA – Education (Cote d’Ivoire)

Fig 1 Cote d’Ivoire, 2007 (attending school, age 6-15)

Fig 1a
Unitary expenditure on education by quintiles of income (2007)

Fig 1b
Unitary expenditure on education by quintiles of probability (2007)

Who gets what?

Fig 4 Tajikistan, 2007 (attending school, age 7-17)

Policy Application 1: Improving Targeting

- Use circumstances as an additional criterion for targeting spending

- Target resources to:
  - Low income levels
  - Groups with lowest access to a basic service
  - Groups with large gaps between benefit and population share

AND

- Least favorable set of circumstances (i.e., to groups least likely to improve by themselves)
Policy Application 1: Improving Targeting (Paraguay)

Figure 12: Share of Public Spending on Secondary Education by Circumstance Group, Paraguay (age 15-17), 2009
Policy Application 1:
Improving Targeting (Paraguay)

Figure 13: Share of Public Expenditure on Hospital Health Care by Circumstance Group, Paraguay, (age 0-17)
Policy Application 2: C/B of simulated spending reforms

- Simulate the effect on existing opportunity profiles after alternative spending reforms
- E.g.: Zambia, age 7-13, primary spending on education
  - Sim 1: Increase unitary benefits by 20% across the board
  - Sim 2: Return average fees to all students
  - Sim 3: Increase benefits 30% rural, decrease 10% urban
- Estimate:
  - Aggregated impact on opportunities
  - Impacts across circumstance groups (winners and losers)
  - Fiscal impact
## Policy Application 2: Education spending in Zambia

<table>
<thead>
<tr>
<th>Coverage (%)</th>
<th>Baseline (%)</th>
<th>Sim 1: Increase of 20% of gross unitary benefit across the board</th>
<th>Sim 2: Average fees returned across the board</th>
<th>Sim 3: 30% increase in benefits to rural students and 10% decrease among urban students</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>82.0</td>
<td>83.1</td>
<td>82.1</td>
<td>83.3</td>
</tr>
<tr>
<td>Area of Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>78.0</td>
<td>79.3</td>
<td>79.9</td>
<td>78.0</td>
</tr>
<tr>
<td>Urban</td>
<td>90.8</td>
<td>91.3</td>
<td>90.6</td>
<td>90.8</td>
</tr>
<tr>
<td>Groups of circumstances (defined by household head's education, area of residence, sex of child)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th grade or less</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Male</td>
<td>70.1</td>
<td>72.5</td>
<td>72.5</td>
<td>70.0</td>
</tr>
<tr>
<td>Rural Female</td>
<td>71.5</td>
<td>73.9</td>
<td>73.9</td>
<td>71.5</td>
</tr>
<tr>
<td>Urban Male</td>
<td>81.4</td>
<td>80.9</td>
<td>80.9</td>
<td>81.4</td>
</tr>
<tr>
<td>Urban Female</td>
<td>82.9</td>
<td>82.5</td>
<td>82.5</td>
<td>82.8</td>
</tr>
<tr>
<td>7th to 9th grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Male</td>
<td>79.8</td>
<td>81.7</td>
<td>81.7</td>
<td>79.8</td>
</tr>
<tr>
<td>Rural Female</td>
<td>81.0</td>
<td>82.8</td>
<td>82.8</td>
<td>81.0</td>
</tr>
<tr>
<td>Urban Male</td>
<td>88.3</td>
<td>88.0</td>
<td>88.0</td>
<td>88.3</td>
</tr>
<tr>
<td>Urban Female</td>
<td>88.9</td>
<td>88.6</td>
<td>88.6</td>
<td>89.0</td>
</tr>
<tr>
<td>9th grade or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Male</td>
<td>89.4</td>
<td>90.5</td>
<td>90.5</td>
<td>89.3</td>
</tr>
<tr>
<td>Rural Female</td>
<td>90.2</td>
<td>91.2</td>
<td>91.2</td>
<td>90.2</td>
</tr>
<tr>
<td>Urban Male</td>
<td>94.2</td>
<td>94.0</td>
<td>94.0</td>
<td>94.2</td>
</tr>
<tr>
<td>Urban Female</td>
<td>94.4</td>
<td>94.3</td>
<td>94.3</td>
<td>94.4</td>
</tr>
<tr>
<td>HOI</td>
<td>77.6</td>
<td>78.9</td>
<td>79.2</td>
<td>79.3</td>
</tr>
<tr>
<td>Total fiscal cost (US$ millions)</td>
<td>156.7</td>
<td>188.0</td>
<td>196.6</td>
<td>188.8</td>
</tr>
</tbody>
</table>
Conclusions

- Increasing attention to inequality and role of fiscal policies
- OIA builds from conventional wisdom and BIA
- As diagnostic tool: income matters but so other circumstances
- As policy tool:
  - Least favorable circumstances as additional targeting criterion
  - Simulate spending reforms’ impact on opportunities
- Still need to make progress on better information, more comprehensive analysis and on tax and opportunities analysis
Many thanks