Global trends in multidimensional poverty and horizontal inequalities in poverty

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Background and objectives

- Limited evidence of trends in multidimensional poverty
- Existing evidence based on the global MPI shows that poverty has declined almost everywhere, and nowhere it has increased (Alkire et al., 2020)
- In a recent study we looked at the trends in multidimensional poverty in 54 countries during the MDG era using two different indices (G-M0 and G-CSPI) (Burchi et al., 2022).
- Here we expanded the analysis to a longer time-frame (1996-2018) and a larger sample of countries (85)
- **Objectives**: 1) to assess poverty trends; 2) to examine horizontal (rural/urban; gender) disparities in poverty
Two indices: G-CSPI and G-M0

Main features of the indices:

- They incorporate 3 key dimensions: education, health and work (Burchi et al., 2018, 2020, 2021)

- They are individual-based measures of poverty: focus on 15-65 years old individuals 64% of the population in LICs and MICs

- Calculated for over 700 household surveys (about 104 countries), using the International Income Distribution Database (I2D2) established by the World Bank.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Weight</th>
<th>Indicator</th>
<th>Deprived if…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulfilling work</td>
<td>1/3</td>
<td>Employment status</td>
<td>Person is unemployed &amp; seeking a job, or is employed in a low-pay/low-quality sector</td>
</tr>
<tr>
<td>Adequate education</td>
<td>1/3</td>
<td>Literacy</td>
<td>Person is unable to read, to write or both</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Years of education</td>
<td>Person has less than 4 years of schooling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Educational level</td>
<td>Person has no education</td>
</tr>
<tr>
<td>Access to water &amp; sanitation (health)</td>
<td>1/3</td>
<td>Access to safe drinkable water and adequate sanitation</td>
<td>Person has no access to drinkable water and no access to adequate sanitation</td>
</tr>
</tbody>
</table>
The G-CSPI uses CSPI measure (Rippin, 2014, 2017)

The G-M0 uses the adjusted headcount ratio or “M0” measure (Alkire and Foster, 2011) with k=2

While the G-M0 is fully decomposable by dimensions, the G-CSPI is distribution-sensitive and can be decomposed in the 3 I’s of poverty: incidence, intensity and inequality (Burchi et al., 2021, 2022).

By using both indices we can make a more robust assessment of poverty trends
Data and methods

- **Time-frame**: 1996-2018
- Focus on longer-term trends (>=5 years) rather than short-term fluctuations
- Final sample: 85 countries

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of countries</th>
<th>% of the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia &amp; Pacific</td>
<td>12</td>
<td>14.1</td>
</tr>
<tr>
<td>Europe &amp; Central Asia</td>
<td>15</td>
<td>17.7</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>18</td>
<td>21.2</td>
</tr>
<tr>
<td>Middle East &amp; North Africa</td>
<td>2</td>
<td>2.4</td>
</tr>
<tr>
<td>South Asia</td>
<td>5</td>
<td>5.9</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>33</td>
<td>38.8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>85</strong></td>
<td></td>
</tr>
</tbody>
</table>

- In total, poverty estimates for 487 data points (5.7 per country, on average)
- Here focus mostly on *absolute* and *relative* changes between baseline and endline year
About 85% of the countries succeeded in reducing multidimensional poverty.

The largest progress was in South Asia.

The lowest progress was in Sub-Saharan Africa, where about 25% of the countries witnessed an increase in the G-CSPI (even more with the G-Mo).

The mean annualized change in the G-CSPI was -0.41 pp in absolute terms and -2.4% in relative terms.

South Asia is clearly the region with the fastest relative decline in poverty (-5.2% in the G-CSPI).

SSA saw the lowest progress, with an average annual relative decline in the G-CSPI of 1.47%.

**Relative changes in the G-CSPI, by region**

**Number and % of countries reducing poverty, by region & measure**

<table>
<thead>
<tr>
<th>Region</th>
<th>G-CSPI</th>
<th>G-M0 (k=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. countries reducing poverty</td>
<td>% reducing poverty</td>
</tr>
<tr>
<td>Total sample</td>
<td>72</td>
<td>84.7</td>
</tr>
<tr>
<td>East Asia &amp; Pacific (EAP)</td>
<td>11</td>
<td>91.7</td>
</tr>
<tr>
<td>Europe &amp; Central Asia (ECA)</td>
<td>13</td>
<td>86.7</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean (LAC)</td>
<td>17</td>
<td>94.4</td>
</tr>
<tr>
<td>Middle East &amp; North Africa (MNA)</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>South Asia (SAS)</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Sub-Saharan Africa (SSA)</td>
<td>25</td>
<td>75.8</td>
</tr>
</tbody>
</table>

Source: own elaborations
Income vs. multidimensional poverty trends

- Income poverty (US$ 2.15) and multidimensional poverty move in the same direction in 50 countries (80%): in 47, both decline and in 3 both rise.
- In the remaining 20% of the countries, they move in opposite directions.
- Positive correlation, but not strong (rho ≈ 0.3).
- The annualized relative change was -11.3% for income poverty and -2.4% for the G-CSPI (left panel).
- Progress in poverty reduction was much faster for income poverty than for multidimensional poverty: 4.7 times faster with G-CSPI and 2.7 times with G-M0.
- Economic growth reduces income poverty substantially (5-8 times) more than multidimensional poverty (Balasubramanian et al., 2023).

Source: own elaborations
Rural-urban disparities in poverty

- At the baseline, in 72 out of 74 countries rural poverty exceeded urban poverty
- On average the rural poverty was 3.1 times higher than urban poverty
- More countries experienced a decline in rural poverty than in urban poverty
- As a consequence, the average ratio fell to 2.7

- The largest relative decline in the rural/urban G-CSPI ratio occurred in the South Asia & MENA region (-3.4%) and ECA (-2.9%)
- No change in SSA and even an increase by 1.8% in EAP

Source: own elaborations
Gender disparities in poverty

- Enormous challenges in assessing gender disparities in poverty
- In a recent paper (Burchi and Malerba, 2023), we used a revised version of the G-CSPI and G-M0 to examine the female/male poverty ratios in 76 countries
- Results: in 72 countries female poverty exceeded male poverty
- On average, multidimensional poverty is about 60% higher among women
- The largest gender disparities were found in MENA and South Asia

Source: Burchi and Malerba, 2023
Conclusions

- Multidimensional poverty has declined in the vast majority of the countries, with an average relative reduction of nearly 2.4% annually.
- Progress has been uneven across regions. In particular, SSA was the region with the slowest relative reduction in poverty (-1.47% per year).
- Income and multidimensional poverty may even move in opposite directions and multidimensional poverty has declined substantially less (about 3-4 times).
- Poverty reduction is driven by improvements in education and health, and by the performance of rural areas. Rural/urban poverty gap has fallen.
- Progress in poverty eradication has not been as remarkable as believed and interventions succeeding in alleviating income poverty are not necessarily effective in reducing multidimensional poverty (see economic growth).
- Anti-poverty policies should primarily focus on SSA, women, rural households, and on ensuring decent jobs.