WIDER Development Conference
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Parallel Session 1.3
Poverty, Inequality and Jobs

Discussant: Paola Ballon

September 13, 2018
Discussion

Based on three papers:

**Paper 1:** Eradicating poverty by 2030: Implications for income inequality, population policies, food prices (and faster growth?), by Giovanni Andrea Cornia.

**Paper 2:** How does the sectoral composition of employment affect inequality?, by Arief Yusuf, Padjadjaran and Andy Sumner.

**Paper 3:** The role of inequality in poverty measurement, by Sabina Alkire and James Foster.
Outline

• Highlights of the papers presented: aim and findings
• Multidimensionality of Poverty in the Development Discourse
  Mulidimensional Dashboard, Overlapping Poverty
• Comments
### I. Highlights

<table>
<thead>
<tr>
<th>Paper 1</th>
<th>Cornia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examines whether the 2030 <strong>planned</strong> eradication of monetary poverty (SDG 1) is compatible with the expected trends of its <strong>immediate determinants</strong> - GDP growth, population growth, income inequality and food prices.</td>
<td></td>
</tr>
</tbody>
</table>

**Findings:** 20 - 36% of the studied countries will not reach the SDG 1 monetary target.

<table>
<thead>
<tr>
<th>Paper 2</th>
<th>Yusuf &amp; Sumner</th>
</tr>
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<tbody>
<tr>
<td>Examines the sectoral composition of employment (structural transformation – <code>Kuznets</code>) and its effect on income inequality across provinces in Indonesia.</td>
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</table>

**Findings:** Kuznets somehow verified. Inequality ↑: employment share of industry ↑ and when employment share of some services ↑ (high turning points)

<table>
<thead>
<tr>
<th>Paper 3</th>
<th>Alkire &amp; Foster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examines whether inequality can be usefully incorporated into the Alkire and Foster (2011) poverty measures. They propose a new axiom: Dimensional Transfer.</td>
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</table>

**Findings:** They find a general impossibility theorem that shows the conflict between two key axioms: Dimensional Breakdown and dimensional transfer.
II. Multidimensionality of Poverty in the Development Discourse

• The 2015 Sustainable Development Agenda acknowledges poverty as multidimensional.

  **Target 1.2:** by 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

*Report of the Commission on Global Poverty (World Bank)*
• **Recommendation 11:** The Bank should publish, alongside the global poverty count, a portfolio of Complementary Indicators, including a multidimensional dashboard of outcome indicators..

• **Recommendation 18:** The World Bank should establish its own requirements with regard to the measurement of nonmonetary poverty, for inclusion in the Complementary Indicators (including the overlapping poverty measure) and in other World Bank uses...
Multidimensional Dashboard vs. Overlapping Poverty

Table 2.5 Illustration of Overlapping Poverty Index

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Education</th>
<th>Shelter</th>
<th>Personal security</th>
<th>Deprivation score</th>
<th>Poor (with $k = 2$)</th>
<th>Censored deprivation score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household 1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.75</td>
<td>Yes</td>
<td>0.75</td>
</tr>
<tr>
<td>Household 2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.50</td>
<td>Yes</td>
<td>0.50</td>
</tr>
<tr>
<td>Household 3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.25</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Household 4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.25</td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Household 5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.25</td>
<td>No</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: 1 = below deprivation threshold; 0 = above threshold. Households are assumed to be equal in size. Dimensions each receive a weight of 0.25, so the score for household 1 is three times 0.25. On this basis, 2 out of 5 individuals are suffering multiple deprivation ($k$ is 2 or greater), so that the headcount ratio, $H$, is 40 percent.
III. Comments: Paper 1 - Cornia

\[
\frac{\Delta H}{H_{-1}} = f \left[ \frac{\Delta z}{z_{-1}}, \frac{\Delta Y}{Y_{-1}}, n, \frac{\Delta Gini}{Gini_{-1}}, \Delta Gini \left[ \frac{FPI}{CPI} > 1.25\% \right], IT \right]
\]

% change in monetary \( H \) \quad \text{Growth effect} \quad \text{Inequality effect - prices}

1. How feasible would be to extend the comparative-static, poverty-accounting model to a:

   \textit{Multidimensional Dashboard}?
   
   % change in non-monetary headcounts (education, health)

   \textit{Multidimensional Overlap}?
   
   % change in multidimensional headcount poverty
   % change in the intensity of multidimensional poverty
   % change in deprivation ratios among the poor ("censored deprivation ratios")

2. Is it possible to identify the "immediate" determinants?
III. Comments: Paper 2 – Yusuf & Sumner

\[ I_{it} = \alpha + \sum_{j=1}^{J} (\beta_j s_{jit} + \gamma_j s_{j2it}) + \sum_{k=1}^{K} \theta_k x_{kit} + \delta_i + \varepsilon_{it} \]

Income inequality measure  Share of employment by sector  Control variables

1. Study a non-monetary “Kuznets” argument:

*Multidimensional Dashboard?*

On measures of inequality in education, child (mal)nutrition; and assess in what extent the conclusions obtained in the monetary space hold.

*Multidimensional Overlap?*

On measures of multidimensional inequality, such as the \( M_0^2 \) (AF, 2018).

2. Extend the Kuznets argument to study group inequality (horizontal inequality) with monetary/non-monetary indicators?
III. Comments: Paper 3 – Alkire & Foster

\[ M_0^\gamma = \mu(e^\gamma(k)), \gamma \geq 0 \]

1. Interpretability of \( M_0^2 \) for comparisons over time/or with varying parameters of measurement (indicators, dimensions)

While \( M_0^0, M_0^1 \), the headcount ratio (incidence), and the adjusted headcount ratio (breadth of deprivation) can be expressed as 0-1 values, \( M_0^2 \) is presented as a positive number, with larger values denoting greater inequality. It may result useful to “find the maximum” of \( M_0^2 \) and express the information conveyed in a normalised form, as reported by Gini/Theil measures.
Thanks.