From local basic-needs to global poverty measures

Methods and context

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Poverty concept

Poverty as: “pronounced deprivation in well-being”?

Open questions:
1. What is well-being?
2. When is deprivation ‘pronounced’?
What is well-being?

- Freedom from hunger
- Healthy
- Empowered through education
- Social inclusion
- Resilient against natural disasters
Measuring well-being: Monetary measures

Advantages

• Indicate peoples’ means to well-being of their choosing
• Naturally (and meaningfully) give a nice single number to work with

Disadvantages

• Mask character of problem we care about
• Imperfect relationship between command over monetary resources and deprivations (e.g. public goods)

Monetary measures favoured as a summary indicator

Other indicators matter!
Measuring well-being: Consumption vs Income

**Consumption**
- Measures achievement (+)
- No information on causes (-)
- Anchored to permanent income (+)
- Potentially easier to measure?

**Income**
- Measures command over resources (+)
- No direct welfare sources
- Potentially highly variable (-)
- Potentially difficult to measure?

**‘Savings’**

*Returns to assets*
Measuring well-being: Consumption vs Income

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But not easy!

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Food
Clothing
Personal care
Education
Health
Transport
Culture/ceremonies
Social/leisure
Housing expenses

Purchases
Own-production
Gifts

But not easy!
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- Own-production
- Gifts

Purchases
- Own-production?
- Gifts?
- Expenditure vs real consumption?
- prices…

Adult equivalence?

Method transparency matters

easy!
Data set
Data set
Data set
T$0  T$5  T$10  T$15  T$20

- People carrying money bags at each level.
Consumption distribution

Number of people

T$0  T$5  T$10  T$15  T$20  Consumption

$
"the poor"
Initial population

Headcount poverty rate

$= \frac{\#\text{poor}}{\text{total population}}$

$= \frac{50}{150}$

$= 33\%$
Program A

Headcount poverty rate

\[
\text{Headcount poverty rate} = \frac{\#\text{poor}}{\text{total population}} = \frac{50}{150} = 33\%
\]
Program B

Headcount poverty rate

= #poor / total population

= 44/150

= 29%

Number of people

Poverty line

44 people

106 people
Defining a poverty line: national benchmarks

Cost of basic needs:
- meaningful local benchmark - cost of basic food bundle + non-food basic needs

Different approaches, e.g.:
- Generally fixed calories
- Composition based on diets of the ‘poor’
- Nutritionist recommended
- ...
Basic needs poverty line
Number of people

"the poor"

Basic needs poverty line

[Diagram showing a distribution of people with a concentration in the "the poor" category near the basic needs poverty line]
Defining a poverty line

So what is the point of PPP US$1.90/$3.10 per person per day poverty lines?

- Higher standards of living in wealthier populations tend to be reflected in higher standard of ‘basic needs’
  - Better quality food (for a given energy intake)
  - Larger basket of (better quality) non-food basic needs
    - mobile phones
    - more frequent travel from town to villages
    - etc.
- Reflects the ‘relative’ nature of what it means to be poor – and also methodology
Number of people

Basic needs poverty line A

Population A
Defining a poverty line: global benchmarks

- PPP benchmarks attempt to define consistent benchmark standards of living for comparison of ‘poverty’ across countries
- Methodology: How to enhance comparability of welfare distributions?
  - ‘Exchange rate’: International Comparison Program (ICP)
    - Price comparison → to compare welfare in real terms
  - Equivalence scales
    - → Revert to per-capita analysis
  - Fix level of benchmark level of well-being (poverty line) across countries
Defining a poverty line: global benchmarks

• Why $1.90 and $3.10?
  • Meaningful benchmarks NOT at the local level, but from a cross-country perspective

Buys, on average, the same bundle of good that could have been purchased for $1.25 in 2005 in 15 poorest countries in the world

Median poverty line of lower middle income countries
Concluding remarks

- Monetary measures can be useful summary indicators of welfare
  - Other indicators matter!
- Basic needs poverty measures are anchored to a meaningful localised minimal standard of welfare
- PPP-based measures allow for cross-country comparisons
  - $1.90 and $3.10 poverty lines are global benchmarks
  - Demand for a Pacific regional benchmark?
Multi-dimensional Poverty Index (MPI)

Share of acute deprivations experienced
Figure 3: Dimensions, indicators, cutoffs and weights of the MPI

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator</th>
<th>Deprived if...</th>
<th>Related to...</th>
<th>Relative Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Years of Schooling</td>
<td>No household member has completed five years of schooling</td>
<td>MDG2</td>
<td>16.7%</td>
</tr>
<tr>
<td></td>
<td>Child Enrolment</td>
<td>Any school-aged child is not attending school in years 1 to 8</td>
<td>MDG2</td>
<td>16.7%</td>
</tr>
<tr>
<td></td>
<td>Mortality</td>
<td>Any child has died in the family</td>
<td>MDG4</td>
<td>16.7%</td>
</tr>
<tr>
<td></td>
<td>Nutrition</td>
<td>Any adult or child for whom there is nutritional information is malnourished*</td>
<td>MDG1</td>
<td>16.7%</td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td>The household has no electricity</td>
<td>MDG7</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>Sanitation</td>
<td>The household’s sanitation facility is not improved (according to the MDG guidelines), or it is improved but shared with other households</td>
<td>MDG7</td>
<td>5.6%</td>
</tr>
<tr>
<td>Standard of Living</td>
<td>Water</td>
<td>The household does not have access to clean drinking water</td>
<td>MDG7</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(according to the MDG guidelines) or clean water is more than 30 minutes walking from home.</td>
<td>MDG7</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>Floor</td>
<td>The household has dirt, sand or dung floor</td>
<td>MDG7</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>Cooking Fuel</td>
<td>The household cooks with dung, wood or charcoal.</td>
<td>MDG7</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>Assets</td>
<td>The household does not own more than one of: radio, TV, telephone, bike, or motorbike, and do not have a car or tractor</td>
<td>MDG7</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

Note: MDG1 is Eradicate Extreme Poverty and Hunger, MDG2 is Achieve Universal Primary Education, MDG4 is Reduce Child Mortality, MDG7 is Ensure Environmental Sustainability.

* Adults are considered malnourished if their BMI is below 18.5. Children are considered malnourished if their z-score of weight-for-age is below minus two standard deviations from the median of the reference population.