For Protection and Promotion


Poverty and Vulnerability Concepts

Ruslan Yemtsov
The World Bank, HDNSP, Team Leader
1. How is poverty analysis used for social protection planning?

2. Key concepts: the poor
   - Basic poverty measurement: concepts, tools, data
   - Going beyond monetary poverty: health and nutrition
   - What is multidimensional poverty?

3. Key concepts: the vulnerable
   - Poverty over time: chronic and transient poor
   - Vulnerability to poverty: concept and practice.

4. Policy implications
   - Whom to target?
   - What is needed and can a social transfer program provide it?
   - How to assess impact of a social transfer?
Section 2

POVERTY
Basic poverty measurement

• Survey
• Poverty line and welfare

• Indices
• Profile
Survey data

- What kind of survey?
  - Representative
  - Accurate
  - Timely

- Survey of what?
  - Well being (and program participation)

- Could it be simpler?
  - No
Poverty lines: options

- Concept of deprivation
  - Absolute
    - “Nutrition” based
    - Normative
    - International (PPP-based)
  - Relative
Poverty: absolute or relative

- This means there are *absolute* necessities without which the member of a society cannot function
- But ...

By necessities, I understand not only the commodities which are indispensably necessary for the support of life but whatever the custom of the country renders it indecent for creditable people, even of the lowest order, to be without. (Smith (1776))
Poverty line: “basic needs” method

The method is based on the estimated cost of the bundle of goods “adequate” to ensure that basic needs are met. In practice, the cost of the food basket necessary to attain the minimum energy intake is calculated.

Step 1. Pick a nutritional requirement.

Step 2. Choose the basket of food items that will attain this requirement (or calculate the unit cal. cost for a reference group).

Step 3. Estimate the cost of meeting this food basket, that is the food component (or the minimum cal. standard at unit cost).

Step 4. Add a non-food component (based on Engel curve).
Setting the non-food component (empirical)

- Non-food share is based on real consumption structure of the poor.
- Estimated model is based on Engel curve.
- 2 lines!
Example of pitfalls: "Food-energy intake method"

Different sub-groups attain food energy requirements at different standards of living, in terms of real consumption expenditures. e.g., "rich" urban areas buy more expensive calories than "poor" rural areas.
Poverty line and nutrition

- Nutrition is key to the definition of absolute poverty, we say poverty line is anchored in nutrition.

- Minimum food basket is defined by actual consumption patterns of the poor. But...
  - Is selected minimum bundle sufficient to cover different nutritional needs of different groups? E.g. everywhere urban food consumption is below rural at the same real income. But welfare is the same!
  - Is caloric adequacy sufficient to reflect the nutritional value of food? The minimum is clearly not absolute; millions live below it, even if at risk.

- Even though the monetary poverty line is based on a nutrition related calculation (expenditures necessary to attain sufficient calories) actual nutritional status is based on more than access to calories and therefore gives a separate indicator of well-being.
Poverty is not the same as poor nutrition
Malnutrition by consumption quintile in Mozambique

Prevalence of stunting, underweight, and wasting by quintile in Mozambique

Prevalence of Stunting by Quintile and Sex in Mozambique

Are there alternatives to basic needs approach? No

International
• Examples of absolute lines: $1/day (WB)
• Why exactly $1 (in fact $1.25 a day)?
• For whom?
• Is it relevant?

Relative
• Examples of relative lines: 60% of median income per equivalent adult (EU)
• Is it sufficient?
• How is it changing over time?

No matter what is the choice of a poverty lines they are useful as benchmarks for spatial and temporal comparisons. Many countries revise the line each HH survey making it difficult to track trends.
Where $1.25 a day is coming from:
National poverty lines plotted against mean consumption using consumption PPPs for 2005

OLS elasticity=0.66

Note: Fitted values use a lowess smoother with bandwidth=0.8

Source: Chen and Ravallion (2009)
Other dimensions of poverty

Monetary poverty:
- Income poverty
- Consumption poverty

Non-monetary poverty:
- Insecurity
- Poor health
- Low education or illiteracy
- Lack of basic services
- Social exclusion
- Lack of freedom & voice/ lack of empowerment
- Poor nutritional status*

Dynamics of household welfare:
- Duration in poverty
- Chronic vs. transient poverty

Vulnerability to poverty
- Risk-induced vulnerability

* Spans across dimensions
The UNDP’s MPI is composed of ten indicators (http://www.ophi.org.uk/wp-content/uploads/OPHI-MPI-Brief.pdf):

1. Education: Years of Schooling: deprived if no household member has completed five years of schooling • Child Enrolment: deprived if any school-aged child is not attending school in years 1 to 8;

2. Health • Child Mortality: deprived if any child has died in the family • Nutrition: deprived if any member is malnourished;

3. Standard of Living: Electricity Drinking water Sanitation: Flooring Cooking Fuel/ Assets: deprived if the household does not own more than one of: radio, TV, telephone, bike, or motorbike, and do not own a car or tractor.

If one of the deprivation on this list is present, the household is "poor" in this dimension; a household is identified as multidimensionally poor if and only if it is deprived in some combination of indicators whose sum exceeds 30% of all deprivations.

But why these Ds? Why these cut-offs? Why these weights?
Non-monetary poverty concerns as well
Section 3

VULNERABILITY
Poverty changes over time

Indonesia: the case of transient poverty

- Poverty fluctuates over time—households go in and out
- **Transient poor**: households that experience poverty every now and then.

<table>
<thead>
<tr>
<th>Total Number of Poor</th>
<th>February-96</th>
<th>February-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Poor Population</td>
<td>30,781,000</td>
<td>55,800,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1996</th>
<th>Lowest 20%</th>
<th>Second 20%</th>
<th>Third 20%</th>
<th>Fourth 20%</th>
<th>Highest 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.4</td>
<td>12.0</td>
<td>15.5</td>
<td>21.0</td>
<td>43.1</td>
<td></td>
</tr>
</tbody>
</table>

**Percentage Share of Income or Consumption in 1996**

- **Chronic poor**: households that have a high probability of remaining poor
People move in and out of poverty constantly and in large numbers.

Rural Ethiopia: Movements In and Out of Poverty, 1989 & 1995

<table>
<thead>
<tr>
<th>Status in 1989</th>
<th>Status in 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor</td>
</tr>
<tr>
<td>Poor</td>
<td>⇐ 31</td>
</tr>
<tr>
<td>Nonpoor</td>
<td>↓ 15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>46</td>
</tr>
</tbody>
</table>

Source: Dercon (1999).

Although the poverty rate declined from 61 percent to 46 percent, the data still suggest significant flows in and out of poverty, a sign of vulnerability.
Is rural Ethiopia unique in terms of movements across poverty line? No

Egypt, 2005-08

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Non-poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty status 36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>months ago</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>9.6%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Non-poor</td>
<td>9.3%</td>
<td>69.2%</td>
</tr>
</tbody>
</table>

Egypt is from El Laithy et al. (2010), Poland is from Luttmer (2000)

Poland, 1994-5

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Non-poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty status 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>months ago</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>11.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Non-poor</td>
<td>9.0%</td>
<td>71.0%</td>
</tr>
</tbody>
</table>

Poland (94-95)
What is happening to people: Transitions from panel surveys (2)

Households move up and down in the distribution, some experience large swings.

In this case with poverty line at 600 every one was close or crossed the line, but just one household stayed poor and one – non-poor.

Other hh are “vulnerable” to risk of falling into poverty.

But how reliable are these observations?

Expenditure trajectories over survey periods (5 random households)

HH1: always poor; HH3- usually poor; HH5 – transient poor; HH1- occasionally poor, HH2- never poor.
Vulnerability

1) the result of not being able to fulfill the basic need for security
2) more precisely: the possibility of suffering a decline in well-being, brought about by shocks against which protection (insurance, avoidance, prevention) is either too costly or not possible
3) dynamic in nature
4) can affect individuals or strike whole communities

Measures:
Commonly captured through indicators of variability in wellbeing
1) directly observed past indicators of vulnerability: past variability of well-being indicators such as consumption or income (panel example)
2) indirect indicators: usually socio-economic proxies for risk exposure, such as living in disaster-prone areas, being exposed to diseases, living in remote areas, not owning assets
Vulnerability analysis and action

- Analysis is identifying main sources of risk and their relative importance and those most affected by them.
- Understand the sources of vulnerability:
  - High exposure to risks?
  - Low resilience against shocks (low level of assets)?
  - Inability to cope (or detrimental coping strategies)
- Should help targeting the short-term poor, the long-term poor, or the most vulnerable?
  - If short-term poverty is such that it threatens physical subsistence, then current poverty (not vulnerability) should arguably be the main target of public policy.
  - But security (protection against uncertainty) is a basic need – so it is unavoidable to target vulnerable as well.
  - Temporal pattern of vulnerability and variability in well-being is also important for the design of targeting schemes:
    1) temporal shocks are auto-correlated across time (same people are exposed over time)? if yes, concentrate help on those who are currently poor
    2) are shocks correlated across individuals and households (neighbors are affected simultaneously)? if so, target help on communities
Vulnerability to poverty:

The problem with this definition is that easily 60-80% are becoming eligible for assistance => Policy choices.
Practical approach to define the vulnerable

Vulnerable groups:

- Have, typically, higher rates of poverty compared to the rest of the population
- Specifically ‘helpless’ or ‘weak’ groups, liable to serous hardship and poverty
- Unable to take advantage of opportunities, limited defenses if shocks occur
- Disabled, orphans, HIV infected, elderly, female headed households

These groups are exposed to specific risks. But many households are also exposed to risks over their lifecycle
Section 4

POLICY
What poverty analysis does for SP?

a) identifies the poor (clients of SP)

b) assesses how well social policy works:
   e.g.:
   i) how many of the poor are excluded from SP programs?/ how well programs are targeted?
   ii) is it the poorest of the poor who benefit most from public policy?
   iii) would a different sort of policy/program reduce poverty?

c) helps to design more efficient SP schemes
   Benefic level, targeting, basic needs....

d) What they do not intend to do:
   Set the minimum standard / floor (statistical concept of poverty measurement vs. policy objectives)
From analysis to policy

<table>
<thead>
<tr>
<th>By analyzing:</th>
<th>We get insights into:</th>
</tr>
</thead>
<tbody>
<tr>
<td>characteristics of poverty / vulnerability/deprivations</td>
<td>whom public policies need to help (target)</td>
</tr>
<tr>
<td></td>
<td>how to identify (target) these groups (eligibility, targeting method)</td>
</tr>
<tr>
<td>the extent of poverty /vulnerability</td>
<td>the scope of the program (coverage, budget)</td>
</tr>
<tr>
<td>causes of poverty/vulnerability (why do they belong to this target group? )</td>
<td>what treatment may ameliorate their status (type of program, level of benefit)</td>
</tr>
</tbody>
</table>
Conclusions

✓ Social Assistance programs focus on the poor and vulnerable (help avoid destitution)

✓ By doing so they protect the whole population against the risk of poverty (insurance function)

✓ They should use clear criteria for targeting that cannot be the same for all programs

✓ Social protection interventions are policies, and fundamentally are driven by political choices
THANK YOU