Bringing Up Incentives: A Look at the Determinants of Poverty

Alice Sheehan
Outline presentation

- What’s going on out there?
  - Growth, Human Development indicators, Poverty rates, etc.
- A look at determinants of poverty on three different levels: Immediate, Community, and Regional/National
  - An example of these determinants in action
- A look at the Root Determinants of poverty
  - Data Analysis
## Annual increase in per capita GDP

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>U.S.A, Canada, Australia</td>
<td>1.7</td>
<td>2.9</td>
<td>2.1</td>
<td>2.2</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Western Europe</td>
<td>4.2</td>
<td>4</td>
<td>2.5</td>
<td>1.9</td>
<td>1.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>3.8</td>
<td>3.4</td>
<td>3</td>
<td>-0.6</td>
<td>0.7</td>
<td>2</td>
</tr>
<tr>
<td>Former U.S.SR</td>
<td>3.3</td>
<td>3.5</td>
<td>1.5</td>
<td>0.7</td>
<td>-3.5</td>
<td>1</td>
</tr>
<tr>
<td>Latin America</td>
<td>2.2</td>
<td>2.4</td>
<td>3</td>
<td>-0.7</td>
<td>1.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Asia</td>
<td>3.8</td>
<td>4.1</td>
<td>2.9</td>
<td>3.2</td>
<td>3.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Africa</td>
<td>1.9</td>
<td>2.5</td>
<td>1.2</td>
<td>-0.7</td>
<td>0.2</td>
<td>1</td>
</tr>
<tr>
<td>World</td>
<td>2.8</td>
<td>3</td>
<td>1.9</td>
<td>1.3</td>
<td>1.5</td>
<td>2.1</td>
</tr>
</tbody>
</table>

**Source:** Cooper, 2005
Some human development indicators

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1980</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant Mortality(^a)</td>
<td>140</td>
<td>80</td>
<td>52</td>
</tr>
<tr>
<td>Life Expectancy(^b)</td>
<td>43</td>
<td>59</td>
<td>64</td>
</tr>
<tr>
<td>Illiteracy(^c)</td>
<td>53</td>
<td>43</td>
<td>28</td>
</tr>
</tbody>
</table>

\(^a\) Deaths per 1000 births  
\(^b\) Years from birth  
\(^c\) Percent of adults

Source: Cooper, 2005

<table>
<thead>
<tr>
<th>Region and Measure</th>
<th>Poverty line (PPP, $1.50 a day)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head count ratio (percent)</strong></td>
<td></td>
</tr>
<tr>
<td>East Asia</td>
<td><strong>86.6</strong></td>
</tr>
<tr>
<td>South Asia</td>
<td>44.3</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td><strong>59.3</strong></td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>26.3</td>
</tr>
<tr>
<td>Latin America</td>
<td>22.0</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>17.8</td>
</tr>
<tr>
<td><strong>Developing world</strong></td>
<td><strong>63.2</strong></td>
</tr>
</tbody>
</table>

| **Number of poor people (millions)** |       |       |       |       |       |       |
| East Asia                           | **830** | 729  | 833  | 955  | 521  | **114** |
| South Asia                          | 208   | 209  | 229  | 310  | 207  | 105   |
| Sub-Saharan Africa                  | **104** | 118  | 150  | 188  | 279  | **362** |
| Middle East and North Africa        | 27    | 32   | 23   | 10   | 16   | 29    |
| Latin America                       | 36    | 35   | 27   | 13   | 23   | 27    |
| Eastern Europe                      | 49    | 29   | 12   | 7    | 0    | 0     |
| **Developing world**                | **1223** | 1131 | 1262 | 1479 | 1056 | **647** |

*Source: Cooper, 2005*
People living on less than $1 a day (in millions)

Research Question

Why do we see such large variations of poverty rates across countries?
Immediate determinants of poverty at the individual & household levels

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Economic</th>
<th>Social</th>
</tr>
</thead>
</table>
| • Household composition  
  • Dependency ratio  
  • Age and sex of household head | • Household employment  
  • Land owned  
  • Ownership of other assets | • Health  
  • Education  
  • Shelter |
Community and regional/national level determinants

**Community Level**
- Access to infrastructure
- Human resources development
- Access to employment
- Social mobility
- Political representation
- Land distribution
- Social Capital

**Regional/National Level**
- Institutions
  - Quality of governance
  - Control of Corruption
  - An active civil society
- Geography
  - Environmental Conditions
- Gender, ethnic, racial inequality
Reasons for leaving primary school in Zambia

- Monetary cost: 60%
- Had enough school: 12%
- Too far to school: 12%
- Labor needed: 6%
- Travel unsafe: 5%
- Long-term illness: 5%

Root Determinants of Poverty

- Institutions
  - Quality of Governance
  - Macroeconomic policies
    - Investment climate
  - Risk of Expropriation, Government Effectiveness, Regulatory Quality, Rule of Law, and more

- Geography
  - Mean Temperature, Proportion of land within 100 Km from the sea, Absolute Latitude

- Development strategies and Aid Efficiency
  - Good Aid Management
  - Harmonization and Alignment
  - Pro-Poor Growth
Correlation between Poverty Rate and Rule of Law: -0.5406

bandwidth = .8
Correlation between Log Poverty Rate and Government Effectiveness: -0.4786
Correlation between Log Poverty Gap and Control of Corruption: 0.3901

The diagram illustrates a scatter plot showing the relationship between poverty rate (average 1996-2002) and control of corruption, with a bandwidth of 0.8.
Correlation between Poverty Rate and Risk of Expropriation: -0.5454
Correlation between Poverty Rate and Regulatory Quality:  -0.1038
Correlation between Poverty Rate and Time Required to Start a Business: 0.1235
Correlation between Log Poverty Gap and Proportion of Land within 100 km of the seacoast: -0.2296
Correlation between Log Poverty Rate and Mean Temperature: 0.5020
Correlation between Log Poverty Rate and $\ln \text{malfal}$: 0.3845
Remarks

- Economic growth is good to reduce poverty
- Institutional quality is related to poverty rates
- Geographic variables are also correlated with poverty rates
- Pro-Poor growth strategies should include institutional development and take geographic variables into consideration
- Create incentives by reducing barriers
Acknowledgements

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