Benchmarking Global Poverty Reduction

Martin Ravallion

This presentation draws on:
What constitutes “good performance” against poverty? And “bad performance”?

• International development institutions and almost all developing countries track poverty measures, and the results are watched keenly.
• But how do we judge performance? When do we say it is “good” or “bad”?
• Little attention has been given to these questions.
Goals to motivate action?

• Under certain conditions, setting a goal can motivate effort to achieving it.
• The Millennium Development Goals were conceived with that aim in mind. They aimed to “stretch ambitions and mobilize political commitment and public support.” (Hume, 2009).

• However, it is not clear that goals do this in practice.
• The goal cannot be seen as impossible if it is to motivate extra effort, but it cannot be too easy either.
This paper

• … tries to identify measures and seemingly defensible benchmarks for judging progress going forward.
• The proposed benchmarks rest on explicit assumptions about future growth and distributional change—assumptions that are informed by knowledge of recent past performance and current expectations about growth prospects.

• It is hoped that this effort will help:
  – inform public discussions on development goals,
  – guide assessments of performance over the coming decade, and
  – help mobilize efforts against poverty.
1. Poverty of what?
Higher lines in richer countries, but with a lower bound

Luxembourg
USA

Malawi, Mali, Ethiopia, Sierra Leone, Niger, Uganda, Gambia, Rwanda, Guinea-Bissau, Tanzania, Tajikistan, Mozambique, Chad, Nepal, Ghana
The “$1.25 a day” global poverty measures

• To measure poverty in the world as a whole, the “$1.25 a day” measures apply a common standard, anchored to what “poverty” means in the world’s poorest countries.

• Two people with the same purchasing power over commodities are treated the same way—both are either poor or not poor—even if they live in different countries.

• By focusing on the standards of the poorest countries, the $1.25 a day line gives the global poverty line a salience in focusing on the world’s poorest.

• It is a conservative definition; a lower line is hard to accept, but one might easily defend a higher line.
Relative poverty

• Absolute poverty measures do not allow for higher costs of social inclusion in richer countries.
• However, those costs must have a positive minimum in poor countries, which rules out the “strongly relative” lines used in Western Europe and OECD. These lines under-estimate the costs of social inclusion in poor countries.
• This leads to the “weakly relative poverty measures” proposed by Ravallion and Chen (2011).

Weakly vs. strongly relative lines
Weakly vs. strongly relative lines

Social inclusion cost for poorest; e.g., Adam Smith’s linen shirt, which costs just as much for the poorest.
Operational version: Global (weakly) relative poverty lines

\[ Z(M_{it}) \equiv \$1.25 + \max[M_{it} - \$1.25, 0]/2 \]

Excellent fit with data on national lines
2. Recent trends in growth, inequality and poverty reduction
The recent growth performance of the developing world

- The poverty rate for a given distribution depends on the mean of that distribution (relative to the poverty line) and the extent of “inequality” in the distribution.
- Consider the mean first. Using nationally representative surveys, the mean will naturally depend in part on national income.
- The developing world as a whole has been maintaining a growth rate for GDP of around \(6\%\) over most of the last decade, though dipping substantially (and temporarily) in 2008-09, due to the global financial crisis.
- This is a full 2% points higher than the average growth rate of about 4% from the 1960s through to the mid-1990s.
Current expectations for growth

- The Bank’s current growth projections assume that a full-blown Euro crisis will be avoided and the annual growth rate of GDP for the developing world will still be 6% in the coming few years (having fallen slightly this year).
- This would represent a 4.9% rate for GDP per capita.
- While the recent growth has not been even across all regions, the three regions that account for the bulk of absolute poverty—East Asia, South Asia and Sub-Saharan Africa (SSA)—have also seen strong growth in recent years, namely around 8% in East Asia, 7% in South Asia and 5% in SSA.
- Current expectations are that these rates will be maintained.
Trends for inequality

- Trend decrease in total inequality, but an increase since 2005 due to rising between-country inequality.
- Between-component driven by the high growth in some previous LIC’s, esp. China and India.
- As these have graduated to MIC status, they have imparted less influence on overall inequality.

Looking forward, we can expect higher between-country inequality and (probably) higher total inequality, but diverse changes within-country inequality (+ inequality convergence).
Absolute and relative poverty in the developing world

Headcount index (% below poverty line)

Upper bound: absolute + relative

Lower bound: absolute poverty

Rising proportion of relatively poor: 80% of the relatively poor in 1981 were absolutely poor, but by 2008 the proportion had fallen to under half.
This is not just about success in China!

- Since 2000 we have seen a marked acceleration in poverty reduction outside China.
- Ratification of MDGs at Millennium Summit of 2000? Maybe, but very hard to say.
Numbers of absolutely and relatively poor

Two-thirds of the increase in the number of people who are relatively poor but not absolutely poor is accountable to the decrease in the number of absolutely poor.
Growth is a less important proximate cause of uneven progress against relative poverty

- Average elasticity of absolute poverty reduction to growth in the mean of around -2.
- Weakly relative poverty is also responsive to economic growth, but less so.
- Elasticity of -0.4 for the relative poverty measure—one fifth of the value for absolute poverty.
- And the elasticity will decline with growth.
3. Proposed benchmarks
Three benchmarks over the next 10 years

- **Pessimistic benchmark**: policy reversals and crises entail that we return to the slower pace seen in the 1980s and 1990s.

- **Optimistic target**: This assumes that the recent pace of success against poverty can be maintained; this can be thought of as the counterfactual in the absence of extra effort but with a measure of good luck.

- **The ambitious trajectory**: a “high case” path that would be a real challenge, requiring substantial extra effort from the whole world.
The three benchmarks for absolute poverty

“Bending the curve” to make poverty history!

Headcount index (% below $1.25 a day)
The low-case—the “pessimistic” benchmark

• This assumes that the developing world outside China returns to its pre-2000 pace of poverty reduction, but China remains on track.

• Projecting the series forward linearly, this implies a poverty rate of 17.7% for the developing world outside China in 2022, and a rate of zero for China.

• Given current population projections, this implies an overall poverty rate of 14% in 2022.

• The number of poor would still fall, from 1.1 billion in 2012 to 0.9 billion by 2022.
The optimistic trajectory: maintain past progress going forward

- Linear projection, though in close agreement with country-based projections.
- Absolute poverty:
  - 19% this year (1.1 bn.)
  - 14% in five years (0.9 bn.)
  - 9% in 10 years (0.6 bn.)
- Relative poverty:
  - 46% this year (2.7 bn.)
  - 44% in five years (2.7 bn.)
  - 42% in 10 years (2.7 bn.)

The number of relatively poor is expected to stabilize under the optimistic trajectory.
Three scenarios for a more ambitious target of 3% by 2022

• **Scenario 1**: This sets a more ambitious growth target 1 percentage point higher than for the optimistic trajectory but without an increase in inequality or further decline in household sector’s share of consumption.

• A 1% point higher growth rate is still only half of the increase in trend growth rates that we saw in the 2000s.
  – The developing world went from a growth rate of around 4% in the 1980s and up to the mid 1990s to 6% in the 2000s.

• With a growth rate of slightly more than 1% point higher, the 3% target would be reached in 10 years as long as there was no increase in overall inequality beyond its level in 2008.

• Higher growth rates in Africa will be crucial.
### Inequality-neutral growth rates for various targets

Growth rates for the developing world as a whole required for various target poverty rates at fixed level of overall inequality within the developing world.

<table>
<thead>
<tr>
<th>Target poverty rate for 2022 ($1.25 a day)</th>
<th>Required annual growth rate in household consumption per capita at 2008 level of inequality</th>
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</thead>
<tbody>
<tr>
<td>1%</td>
<td>10.5%</td>
<td>8.4%</td>
</tr>
<tr>
<td>2%</td>
<td>7.6%</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>3%</strong></td>
<td><strong>6.1%</strong></td>
<td><strong>5.6%</strong></td>
</tr>
<tr>
<td>4%</td>
<td>5.1%</td>
<td>5.8%</td>
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<tr>
<td>5%</td>
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Note: These are the required growth rates for survey means over the period 2008-2022. The calculations in Col. (1) are based on the distribution of consumption for the developing world in 2008, while those in Col. (2) use anchored to the 2008 mean but using the Lorenz curve for 1999, which gave the lowest overall inequality during the period 1981-2008. For each target poverty rate, I solved backwards to find the growth rate needed to reach that target holding constant the Lorenz curve at that of either 2008 or 1999. Source: Author’s calculations using PovcalNet.

Very high growth rates needed to reach bottom 1-2%.
**Same growth but lower inequality**

- **Scenario 2**: The 3% target could also be achieved with the same growth rate but lower inequality.
- And the drop in overall inequality would be within the range of recent experience.
- Column (2) gives the growth rates needed to attain each target poverty rate in 2022 but this time using the relative distribution (the Lorenz curve) of 1999, which was the year of lowest total inequality, with an inequality index of 0.52, as compared to 0.57 in 2008.
- This lower level of inequality will entail lower poverty but also allow a more pro-poor subsequent growth path.
- We now see that if mean consumption grew at 4.6% (with no other change in inequality) then we would reach 3% by 2022.
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Source: Author’s calculations using PovcalNet

1% higher growth or return to 1999 level of inequality.
Higher growth but same pattern of rising inequality and declining household share

- **Scenario 3**: The 3% target can also be reached with the currently expected “pattern of growth,” but at about a 50% higher overall level.
- Again, inequality is held constant within developing countries, and the household share of national income does not fall.
- However, rising inequality continues between countries.
- If all positive growth rates currently expected at country level were increased by a factor of 1.5 (a 50% higher growth rate) then we would reach a poverty rate of 3% by 2022.
- A large share (87%) the remaining poverty under this scenario would be in Africa.
The 33% target for relative poverty

- Success against absolute poverty will undoubtedly swell the ranks of the relatively poor. So progress will be slower.
- Reaching the 33% target would still leave 2.2 billion socially excluded people 10 years from now—though 0.5 billion less than current projections.
- Half of these 2.2 billion people can be accounted for by those who are absolutely poor this year.
- So this goal would actually entail a substantial reduction in the number of people who are relatively, but not absolutely, poor. That number is 1.7 billion in 2012, but (under this target for relative poverty) it would fall to 1.1 billion by 2022.
Conclusions 1

• **Pessimistic** here is back to the 1980’s and ’90s. That will get us to a poverty rate of 14% in 10 years. (Worse than that would be a very bad performance!)

• To set goals that can motivate us to do better, they must represent real progress but not be impossible.

• For absolute poverty, the proposed **optimistic** benchmark for the $1.25 poverty rate in 10 years time is 9%. This would clearly be a very good performance—maintaining an impressive trajectory going back to the early 1980s when the corresponding poverty rate was over 50%.

• In the 20 years from 1990 to 2010 the developing world halved its overall poverty rate, from 43% to 21%. The optimistic trajectory would entail halving it again in a further 10 years.
Conclusions 2

• A very ambitious but still imaginable benchmark for even better performance than this would be 3% within 10 years.

• This could be achieved by a 1% higher growth rate than we have seen recently, but (very importantly) that would also require that there be no further deterioration in either overall inequality or in the household sector’s (survey-based) share of national income.

• Alternatively, moderately lower inequality (bringing the level of overall inequality back to its value in 1999) could attain the ambitious target without higher growth. While the 3% target for 2022 is clearly ambitious, it appears to be within the range of experience for what is possible with a concerted effort toward equitable growth.
Conclusions 3

• For social inclusion, the optimistic target for 2022 implied by the past trajectory is to assure that no more than 40% of the population of the developing world is neither absolutely poor nor relatively poor (by the standards of the country they live in).

• The ambitious target corresponding to the 3% target for absolute poverty would be to assure that at least two-thirds of the population of the developing world is neither absolutely poor nor relatively poor within 10 years.
Conclusions 4

• **Sustainability?** We do not want to reach the 10-year target only to fall back in the subsequent years.
  – For example, a growth path that consumed all the country’s natural resources in 10 years may well attain the ambitious target, but the poverty rate will soon bounce back.

• Existing measures of poverty do not tell us whether the changes observed are sustainable. We need a separate check on sustainability of observed poverty reduction.

• The best measure we currently have is the “*adjusted net savings*” rate (Hamilton and Clemens, 1999).

• The sustainability of a reduction in poverty that came with reduced net savings would be questionable.
Thank you for your attention!